



PARTICIPANT PACKET

Local AI, Privacy, and Trust

Session 1 of AI + Cyber: AI Powered Cybersecurity

Date	Friday, October 16, 2026
Time	1:30 to 5:30 p.m. ET, online
Facilitator	Frazier A. Smith, Ed.D., Central Piedmont Community College
Labs	Lab 1: Local vs. Hosted Execution Lab 2: The Northbridge Data Decision

Data rule for this track. Every file you touch today is synthetic. Northbridge Technical College and everyone in it are fictional. Do not paste real student, employee, or institutional data into any AI tool during the workshop.

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SESSION 1

Session at a Glance

This afternoon moves from belief to evidence to decision. You will test common claims about generative AI against live model behavior, measure what changes when a model runs on campus hardware instead of a hosted service, learn CO-STAR as a repeatable prompt structure, and then use all three in Mission 1.

Time (ET)	Segment	You leave with
1:30 to 1:42	Opening, Northbridge introduction, range login check	Working range login
1:42 to 2:00	Inference Basics: what happens when you press Enter, plus a live "what fits" demo	Inference Basics reference page
2:00 to 2:25	Block 1: Myth or Evidence	Class "can and cannot" list
2:25 to 3:10	Block 2 hardware demos and Lab 1: Local vs. Hosted Execution	Comparison matrix, 2 log entries
3:10 to 3:20	Break	
3:20 to 3:50	Live demo: The Open Door, then Block 3: CO-STAR Prompt Engineering	One rewritten prompt
3:50 to 4:05	Mission 1 Briefing	Team and roles
4:05 to 5:05	Lab 2: The Northbridge Data Decision	Classification, prompt, validation, memo
5:05 to 5:25	Team readouts and provost vote	Draft recommendation
5:25 to 5:30	Exit ticket and Session 2 preview	

By 5:30 You Will Be Able To

1. Distinguish security tasks generative AI handles reliably from tasks where it fails without warning.
2. Run a model locally through Ollama and Open WebUI, and say where prompts, outputs, and history are stored in local and hosted setups.
3. Classify institutional data into four tiers and match each tier to a permitted processing environment.
4. Write a CO-STAR prompt and validate its output with a documented checklist before trusting it.

What You Need

A browser, a terminal tab on the range, the Lab Manual (Markdown), and your copy of the AI Evidence Log workbook. The workbook stays with you for all five sessions. The Student Guide (separate PDF) is the reading behind today: the real cases, the vendor terms, FERPA and GLBA, and 57 numbered references, written so you can hand it to your own students.

Takeaway artifacts you can adapt for your own college: a local-versus-hosted comparison matrix, a data classification and environment matrix, a reusable CO-STAR prompt template, and a one-page AI data-use recommendation.

Inference Basics: What Happens When You Press Enter

Every chatbot, local or hosted, runs the same loop. Knowing its two phases explains why some machines feel fast, why some models will not run on your hardware, and why the same prompt can give different answers.

Step	What happens	What limits it
Tokenize	Your text becomes tokens: whole words or pieces of words, each a number.	Nothing meaningful; it is a lookup.
Prefill	The model reads the entire prompt at once and stores its working notes in the KV cache.	Compute. Sets time to first token (TTFT) .
Decode	The model writes the answer one token at a time, rereading its weights for every token.	Memory bandwidth. Sets tokens per second (TPS) .
Sample	Each step yields a probability for every possible next token; one is drawn.	Settings: temperature, top-p. Temperature 0 picks the top token every time.

In Ollama, `--verbose` prints both: **prompt eval rate** is prefill speed, **eval rate** is decode speed.

Will It Fit? Do the Memory Math

Size in GB is roughly **billions of parameters × bits per parameter ÷ 8**, plus 10 to 20 percent for the KV cache and runtime.

Model	Precision	About
8B	16-bit	16 GB
8B	4-bit	5 GB
gpt-oss 20B	4-bit (as shipped)	14 GB
70B	4-bit	40 GB
gpt-oss 120B	4-bit (as shipped)	65 GB

Two Ways Models Get Smaller or Faster

Quantization stores each weight in fewer bits (16 to 8 to 4). The model gets smaller and decodes faster, but rounding errors can compound and lower quality. Validate quantized output the same way you validate any output.

Mixture of Experts (MoE) splits the model into many experts and uses only a few per token. gpt-oss 120B has about 117 billion parameters but activates about 5 billion per token, so it decodes far faster than its size suggests. It still has to fit in memory in full.

Shared, Dedicated, or Local?

	Shared API (pay per token)	Dedicated cloud GPUs	Local or on-premises
Data	Leaves campus; contract governs it	Leaves campus; you control the server	Stays on hardware you own
Cost	Low to start, grows with every request	Pay per GPU hour, even when idle	Up-front purchase; no per-request fee
Limits	Vendor's models, uptime, rate limits	You run it; engineering effort	Hardware size, cooling, one-off support, scale

Concepts summarized from Philip Kiely, *Inference Engineering* (2026), chapters 1 to 3 and 5.

Myth or Evidence: Your Poll Card

Vote before anything is explained. Mark each claim True, False, or Depends. Keep this page; you will revisit your answers at the end of the block.

#	Claim	True	False	Depends
1	AI knows the latest threats.			
2	If AI gives a CVE number, the CVE is real.			
3	Running a model locally makes it private.			
4	Hosted AI always trains on what you type.			
5	The same prompt gives the same answer.			
6	A bigger model is always more accurate.			
7	AI can tell you whether a file is malicious from its hash.			
8	Prompt injection is a solved problem.			

Generative AI Handles These Well, With Review

Generative AI Fails Quietly On These

Local vs. Hosted Execution

Dana Okafor, a Northbridge instructor, reported a suspicious email this morning. Run the same analysis prompt on a small local model, a large local model, and a hosted model. Then trace where the email went in each case. Full commands are in the Lab Manual.

Score Each Output (1 Point Each)

1. Identifies the authentication failures in the headers.
2. Identifies the lookalike domain.
3. Invents no indicators that are not in the email (check with `grep`).
4. Gives a usable recommendation for the help desk.

Comparison Matrix

Factor	Local small	Local large	Hosted
Model and version			
Speed (tokens/s or seconds)			
Accuracy score (of 4)			
Where the prompt is stored			
Who can access stored data			
Retention and training terms			
Cost model			
Best fit for which data tier (after Lab 2)			

If the session runs on OpenRouter instead of the range GPU, every model runs on a remote provider, including the "local" stand-ins. You are still comparing size and behavior, but not local privacy. Record "OpenRouter" as the environment in your log.

Discussion

1. Did the larger model earn its extra time on this task?
2. Did any model invent an indicator? Would a student have caught it?
3. Local removed the third party. What did it not remove?

CO-STAR Prompt Card

CO-STAR is a six-part checklist for prompts. It works for faculty, and students can learn it and be graded on it.

Element	Question it answers	Security example
Context	What situation and data is the model working with?	You are reviewing an email reported by a staff member at a community college. Headers and body follow.
Objective	What exact task should it complete?	Determine whether the email is phishing and list the evidence from the headers.
Style	What form of writing or analysis?	Write as a SOC tier-1 analyst's triage note.
Tone	What register?	Factual and cautious. State uncertainty where the evidence is incomplete.
Audience	Who reads the output?	The help desk lead, who is not a security specialist.
Response	What format and constraints?	A verdict line, then up to five bullets of evidence, each quoting the header field it relies on. Do not invent indicators.

The Response element is where validation starts. When the model must quote its evidence, you can check every claim against the source.

Practice: Rewrite One Weak Prompt

Pick one: "Summarize this log." · "Write a password policy." · "Explain this PowerShell." · "Make a quiz on firewalls."

Context	
Objective	
Style	
Tone	
Audience	
Response	

The Northbridge Data Decision

Your team is Northbridge Technical College's IT security office. By 5:05 the provost, Dr. Alicia Harmon, needs your recommendation: may faculty and staff process student or institutional information with AI, and under what conditions?

What Happened

Northbridge is a two-year college of about 9,000 students with a small IT security team and no AI policy. Last week an instructor pasted 34 students' names, ID numbers, and midterm grades into a free consumer chatbot to draft individualized feedback. A colleague reported it, and the registrar asked whether it was a FERPA problem.

At the same time, two security analysts want AI to triage phishing reports and summarize firewall logs, and the financial aid director wants help drafting responses to appeal letters.

The Provost Will Accept One of Three Answers

1. Prohibit faculty and staff from processing any non-public information with AI tools.
2. Permit AI use under conditions tied to data classification and approved environments.
3. Permit AI use without restriction and rely on training.

What Northbridge Has

Environment	Details
Consumer AI, no contract	Free public chatbots faculty already use. No agreement with the college.
Licensed hosted AI	One site-licensed service under an enterprise agreement that excludes training on customer data.
Local or on-premises	Ollama and Open WebUI on a campus server administered by IT.
No AI processing	Manual handling.

Constraints You Must Address

Student education records fall under FERPA. Because Northbridge administers federal student aid, its financial aid information falls under the GLBA Safeguards Rule.

Team Roles (Teams of Three)

Role	Owns	Name
Recorder	Workbook sheets and the memo; usually the presenter	
Prompt Lead	Stage 3 CO-STAR prompt and runs	
Validator	Stage 4 checklist and the verdict	

Timing: 1. Classify (15 min) · 2. Select environment (10) · 3. Prompt (10) · 4. Validate (15) · 5. Memo (10)

Classify, Then Select

Stage 1: Classify the Data (15 min)

Read each item in `/opt/nitic/session1/lab2_packet/` (printed copies are in the appendix). Use these tiers: **Public** (approved for release), **Internal** (routine business, low harm if exposed), **Confidential** (exposure harms people or operations), **Restricted** (protected by law, regulation, or contract).

#	Item	Tier	Why (one sentence)	Law, if any
1	Published course catalog entry (CYB 110)			
2	Department meeting notes on next year's budget			
3	Retention rates by program (aggregate)			
4	Reported email about direct deposit			
5	Firewall log excerpt (nbtc-fw01)			
6	Class roster with IDs and midterm scores			
7	Financial aid appeal letter			

Stage 2: Select the Environment (10 min)

Mark each cell **A** (allowed), **C** (conditional; write the condition), or **X** (not allowed). At least one tier must be barred from at least one environment.

Environment	Public	Internal	Confidential	Restricted
Consumer AI, no contract				
Licensed hosted AI				
Local or on-premises				
No AI processing				

De-identification standard (required if any Restricted data is allowed anywhere): what is removed, and who checks it?

Prompt, Then Validate

Stage 3: Construct the Prompt (10 min)

Choose Option A (`item4_reported_email_02.eml`) or Option B (`item5_firewall_excerpt.log`). Write a CO-STAR prompt for the analyst task and run it only in an environment your Stage 2 matrix permits for that tier.

Option chosen	
Environment and model	
Context / Objective	
Style / Tone / Audience	
Response constraints	

Stage 4: Validate the Output (15 min)

#	Check	Pass / Fail	Evidence
1	Every factual claim traces to a specific line in the source data.		
2	No IP address, domain, hash, or CVE appears that is not in the source.		
3	A second run of the same prompt reaches the same verdict.		
4	Counts and totals were checked by hand or by command.		
5	The output contains no data from a tier higher than the environment allows.		
6	A human made the final call, and the log says who.		

Verdict: ☐ Accept ☐ Revise ☐ Reject Reason: _____

Recommendation Memo

To	Dr. Alicia Harmon, Provost, Northbridge Technical College
From	
Date	October 16, 2026
Subject	Use of AI tools with student and institutional information
Decision (1, 2, or 3)	
Tier-to-environment rules	
Validation requirement for AI output	
Response to the consumer chatbot incident	
Other conditions (training, approvals, review date)	

Your presenter reads this in two minutes at 5:05. Take it home and replace "Northbridge" with your own college.

SCORING

Lab 2 Rubric (20 Points)

Criterion	Points	Full credit	Partial credit	Score
Data classification	5	All seven items tiered with defensible reasons; regulated items identified by law (FERPA, GLBA).	3 to 4: one or two items misplaced or unjustified, or laws not named.	
Environment selection	4	Every tier mapped; at least one tier explicitly barred; de-identification standard stated if Restricted data is allowed anywhere.	2 to 3: gaps in the map, or Restricted allowed with no standard.	
Prompt construction	4	All six CO-STAR elements present; Response requires cited evidence and forbids invented indicators.	2 to 3: elements missing or Response unconstrained.	
Output validation	4	Checklist complete; at least one claim tested against the source by command; verdict justified.	2 to 3: checklist partial or verdict unexplained.	
Evidence Log and memo	3	Log entries complete; memo states a decision with conditions.	1 to 2: log gaps, or memo states a decision without conditions.	
Total				

Teams that argue for option 1 (prohibit) with evidence can earn full credit. Option 3 (no restriction) cannot satisfy the environment criterion, since nothing is barred.

Printed Data Packet

Synthetic training material. These are printed copies of the range files in `/opt/nitic/session1/lab2_packet/`. The roster is shortened here; the range copy has all 34 rows.

Item 1 · item1_course_catalog_CYB110.txt

NORTHBRIDGE TECHNICAL COLLEGE
2026-2027 Course Catalog (published)

CYB 110 Security Concepts (3 credit hours: 2 lecture, 2 lab)

Introduces the concepts and terminology of information security, including the CIA triad, common threats and vulnerabilities, access control, basic cryptography, network defense, and security policy. Hands-on labs use virtual machines to practice account hardening, log review, and basic packet analysis. Upon completion, students should be able to identify common attacks and recommend appropriate safeguards.

Prerequisites: None

Corequisites: NET 110 or instructor permission

Offered: Fall, Spring, Summer (online and seated)

TRAINING MATERIAL. Northbridge Technical College is fictional.

Item 2 · item2_dept_meeting_notes_budget.txt

Computer Technologies Department Meeting Notes

Date: September 29, 2026

Attendees: R. Castellanos (Chair), D. Okafor, M. Liang, T. Brewer, J. Whitfield

Recorder: M. Liang

1. FY2027-28 budget request

Dean's office asked departments to hold equipment requests flat. Chair proposes shifting \$18,400 from the printer/lab supply line to replace six lab switches that reach end of support in March 2027. T. Brewer asked whether Perkins funds can cover part of it; Chair will check with Grants by October 10.

2. Adjunct budget

Spring adjunct allocation is down two sections versus last spring. Chair will prioritize CYB 110 and NET 110 sections because of waitlists. Two evening sections of CIS 115 may be cancelled if enrollment stays under 12.

3. AI tools

D. Okafor asked whether faculty can use AI to draft feedback on student assignments. No college policy exists yet. Chair will raise it at the deans' council. Discussion only; no decision.

4. Next meeting: October 27, 2026, 2:00 p.m., Carver Hall 210

TRAINING MATERIAL. Northbridge Technical College is fictional.

Item 3 · item3_retention_by_program.csv

```
program,cohort_term,starting_headcount,retained_next_fall,retention_rate_pct,PELL_recipients_pct
Cybersecurity AAS,Fall 2025,84,61,72.6,48
Network Technology AAS,Fall 2025,52,37,71.2,51
IT Support Certificate,Fall 2025,39,25,64.1,57
Cloud Computing Certificate,Fall 2025,17,14,82.4,41
Health IT Diploma,Fall 2025,9,5,55.6,67
Industrial Cybersecurity Certificate,Fall 2025,4,2,50.0,75
# TRAINING MATERIAL. Northbridge Technical College is fictional. Aggregate figures only; no student identifiers.
```

Item 4 · item4_reported_email_02.eml

```
Return-Path: <payroll-notify@nbtchhrportal.example>
Received: from smtp.nbtchhrportal.example (smtp.nbtchhrportal.example [198.51.100.23])
  by mx1.northbridge-tc.example (Postfix) with ESMTPS id 7KQ2mV9x3Lb
  for <m.liang@northbridge-tc.example>; Wed, 14 Oct 2026 06:15:52 -0400 (EDT)
Authentication-Results: mx1.northbridge-tc.example;
  spf=pass (domain of nbtchhrportal.example designates 198.51.100.23 as permitted sender) smtp.mailfrom=nbtchhrportal.example;
  dkim=pass header.d=nbtchhrportal.example;
  dmarc=none header.from=nbtchhrportal.example
From: "Northbridge Human Resources" <payroll-notify@nbtchhrportal.example>
To: "Mei Liang" <m.liang@northbridge-tc.example>
Cc: "Rosa Castellanos" <r.castellanos@northbridge-tc.example>,
  "Terrence Brewer" <t.brewer@northbridge-tc.example>
Subject: Updated direct deposit form required before October 23 payroll
Date: Wed, 14 Oct 2026 06:15:44 -0400
Message-ID: <20261014061544.55120@nbtchhrportal.example>
MIME-Version: 1.0
Content-Type: text/plain; charset="UTF-8"
```

Hello,

Due to our migration to a new payroll provider, all faculty and staff must confirm their direct deposit information before the October 23 payroll run. Employees who do not confirm will receive a paper check, which may be delayed up to 10 business days.

Please sign in with your Northbridge username and password and confirm your bank routing and account numbers:

<https://nbtchhrportal.example/login?ref=payroll2026>

Questions can be directed to Human Resources at extension 4410.

Northbridge Human Resources

TRAINING MATERIAL. Northbridge Technical College is fictional. All names, domains (.example) and addresses (198.51.100.0/24) are reserved for documentation and do not belong to any real person or organization.

Item 6 · item6_class_roster_CYB110_sec02.csv (first 10 rows)

```
first_name,last_name,student_id,email,midterm_score,accommodation,instructor_note
Aaliyah,Brooks,N00421331,abrooks@students.northbridge-tc.example,76,None,
Marcus,Delgado,N00422028,mdelgado@students.northbridge-tc.example,92,None,
Priya,Nair,N00484641,pnair@students.northbridge-tc.example,92,None,
Diego,Ferreira,N00428922,dferreira@students.northbridge-tc.example,43,Separate testing room,
Hannah,Kowalski,N00401647,hkowalski@students.northbridge-tc.example,67,None,
Tobias,Grant,N00476725,tgrant@students.northbridge-tc.example,92,None,
Keisha,Whitaker,N00443652,kwhitaker@students.northbridge-tc.example,62,None,
Liam,Osei,N00439743,losei@students.northbridge-tc.example,43,None,
Sofia,Romero,N00492664,sromero@students.northbridge-tc.example,76,Separate testing room,
Andre,Fletcher,N00405126,afletcher@students.northbridge-tc.example,81,None,
[... 25 more lines in the range copy ...]
```

Item 5 · item5_firewall_excerpt.log

```
# nbtc-fw01 excerpt, 2026-10-13 02:00 to 03:20 EDT. TRAINING MATERIAL: fictional college; 203.0.113.0/24 and 198.51.100.0/24 are documentation ranges.
2026-10-13T02:08:22-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.20.8.40 DST=10.10.2.50 PROTO=TCP SPT=63638 DPT=389 DSTHOST=dc01.northbridge-tc.example
2026-10-13T02:09:19-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.20.8.40 DST=10.20.4.15 PROTO=TCP SPT=64700 DPT=443 DSTHOST=web01.northbridge-tc.example
2026-10-13T02:11:04-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.15 PROTO=TCP SPT=40000 DPT=21 DSTHOST=web01.northbridge-tc.example
2026-10-13T02:11:06-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.22 PROTO=TCP SPT=40007 DPT=22 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T02:11:08-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.8.31 PROTO=TCP SPT=40014 DPT=23 DSTHOST=sis-db01.northbridge-tc.example
2026-10-13T02:11:10-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.8.40 PROTO=TCP SPT=40021 DPT=25 DSTHOST=fs01.northbridge-tc.example
2026-10-13T02:11:12-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.15 PROTO=TCP SPT=40028 DPT=53 DSTHOST=web01.northbridge-tc.example
2026-10-13T02:11:14-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.22 PROTO=TCP SPT=40035 DPT=80 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T02:11:16-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.8.31 PROTO=TCP SPT=40042 DPT=110 DSTHOST=sis-db01.northbridge-tc.example
2026-10-13T02:11:18-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.8.40 PROTO=TCP SPT=40049 DPT=135 DSTHOST=fs01.northbridge-tc.example
2026-10-13T02:11:20-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.15 PROTO=TCP SPT=40056 DPT=139 DSTHOST=web01.northbridge-tc.example
2026-10-13T02:11:22-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.22 PROTO=TCP SPT=40063 DPT=143 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T02:11:24-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.8.31 PROTO=TCP SPT=40070 DPT=445 DSTHOST=sis-db01.northbridge-tc.example
2026-10-13T02:11:26-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.8.40 PROTO=TCP SPT=40077 DPT=1433 DSTHOST=fs01.northbridge-tc.example
2026-10-13T02:11:28-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.15 PROTO=TCP SPT=40084 DPT=1521 DSTHOST=web01.northbridge-tc.example
2026-10-13T02:11:30-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.22 PROTO=TCP SPT=40091 DPT=3306 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T02:11:32-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.8.31 PROTO=TCP SPT=40098 DPT=3389 DSTHOST=sis-db01.northbridge-tc.example
2026-10-13T02:11:34-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.8.40 PROTO=TCP SPT=40105 DPT=5432 DSTHOST=fs01.northbridge-tc.example
2026-10-13T02:11:36-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.15 PROTO=TCP SPT=40112 DPT=5900 DSTHOST=web01.northbridge-tc.example
2026-10-13T02:11:38-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.22 PROTO=TCP SPT=40119 DPT=6379 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T02:11:40-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.8.31 PROTO=TCP SPT=40126 DPT=8080 DSTHOST=sis-db01.northbridge-tc.example
2026-10-13T02:11:42-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.8.40 PROTO=TCP SPT=40133 DPT=8443 DSTHOST=fs01.northbridge-tc.example
2026-10-13T02:11:44-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.15 PROTO=TCP SPT=40140 DPT=9200 DSTHOST=web01.northbridge-tc.example
2026-10-13T02:11:46-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.22 PROTO=TCP SPT=40147 DPT=27017 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T02:11:48-04:00 nbtc-fw01 kernel: [DROP] rule=default-deny IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.8.31 PROTO=TCP SPT=40154 DPT=11211 DSTHOST=sis-db01.northbridge-tc.example
2026-10-13T02:11:54-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-web-https IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.15 PROTO=TCP SPT=40311 DPT=443 DSTHOST=web01.northbridge-tc.example
2026-10-13T02:11:57-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-vpn IN=eth0 OUT=eth1 SRC=203.0.113.47 DST=10.20.4.22 PROTO=TCP SPT=40322 DPT=443 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T02:13:37-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.20.8.40 DST=10.20.4.15 PROTO=TCP SPT=53538 DPT=443 DSTHOST=web01.northbridge-tc.example
2026-10-13T02:23:12-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.30.12.118 DST=10.20.4.15 PROTO=TCP SPT=54230 DPT=443 DSTHOST=web01.northbridge-tc.example
2026-10-13T02:24:34-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.20.8.40 DST=10.20.4.15 PROTO=TCP SPT=61455 DPT=443 DSTHOST=web01.northbridge-tc.example
2026-10-13T02:30:39-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.30.12.118 DST=10.20.8.40 PROTO=TCP SPT=54794 DPT=445 DSTHOST=fs01.northbridge-tc.example
2026-10-13T02:42:22-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.20.8.40 DST=10.10.2.50 PROTO=TCP SPT=62449 DPT=88 DSTHOST=dc01.northbridge-tc.example
2026-10-13T02:43:22-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.30.12.105 DST=10.20.8.40 PROTO=TCP SPT=55246 DPT=445 DSTHOST=fs01.northbridge-tc.example
2026-10-13T02:46:56-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.30.12.118 DST=10.20.8.40 PROTO=TCP SPT=63013 DPT=445 DSTHOST=fs01.northbridge-tc.example
2026-10-13T02:50:39-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.30.12.118 DST=10.20.4.15 PROTO=TCP SPT=51959 DPT=443 DSTHOST=web01.northbridge-tc.example
2026-10-13T02:56:27-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.30.12.118 DST=10.20.8.40 PROTO=TCP SPT=52785 DPT=445 DSTHOST=fs01.northbridge-tc.example
2026-10-13T02:58:11-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.30.12.118 DST=10.20.4.15 PROTO=TCP SPT=52483 DPT=443 DSTHOST=web01.northbridge-tc.example
2026-10-13T03:02:10-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-vpn IN=eth0 OUT=eth1 SRC=198.51.100.140 DST=10.20.4.22 PROTO=TCP SPT=51200 DPT=443 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T03:02:21-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-vpn IN=eth0 OUT=eth1 SRC=198.51.100.140 DST=10.20.4.22 PROTO=TCP SPT=51201 DPT=443 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T03:02:32-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-vpn IN=eth0 OUT=eth1 SRC=198.51.100.140 DST=10.20.4.22 PROTO=TCP SPT=51202 DPT=443 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T03:02:43-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-vpn IN=eth0 OUT=eth1 SRC=198.51.100.140 DST=10.20.4.22 PROTO=TCP SPT=51203 DPT=443 DSTHOST=vpn-gw.northbridge-tc.example
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2026-10-13T03:02:54-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-vpn IN=eth0 OUT=eth1 SRC=198.51.100.140 DST=10.20.4.22 PROTO=TCP SPT=51204 DPT=443 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T03:03:05-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-vpn IN=eth0 OUT=eth1 SRC=198.51.100.140 DST=10.20.4.22 PROTO=TCP SPT=51205 DPT=443 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T03:03:16-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-vpn IN=eth0 OUT=eth1 SRC=198.51.100.140 DST=10.20.4.22 PROTO=TCP SPT=51206 DPT=443 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T03:03:27-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-vpn IN=eth0 OUT=eth1 SRC=198.51.100.140 DST=10.20.4.22 PROTO=TCP SPT=51207 DPT=443 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T03:03:38-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-vpn IN=eth0 OUT=eth1 SRC=198.51.100.140 DST=10.20.4.22 PROTO=TCP SPT=51208 DPT=443 DSTHOST=vpn-gw.northbridge-tc.example
2026-10-13T03:07:58-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.30.12.118 DST=10.10.2.50 PROTO=TCP SPT=61632 DPT=88 DSTHOST=dc01.northbridge-tc.example
2026-10-13T03:09:22-04:00 nbtc-fw01 kernel: [ACCEPT] rule=allow-internal IN=eth0 OUT=eth1 SRC=10.30.12.118 DST=10.20.4.15 PROTO=TCP SPT=61180 DPT=443 DSTHOST=web01.northbridge-tc.example
2026-10-13T03:14:41-04:00 nbtc-fw01 kernel: [DROP] rule=deny-lab-to-admin IN=eth0 OUT=eth1 SRC=10.30.12.118 DST=10.20.8.31 PROTO=TCP SPT=55012 DPT=1433 DSTHOST=sis-db01.northbridge-tc.example
2026-10-13T03:14:44-04:00 nbtc-fw01 kernel: [DROP] rule=deny-lab-to-admin IN=eth0 OUT=eth1 SRC=10.30.12.118 DST=10.20.8.31 PROTO=TCP SPT=55013 DPT=1433 DSTHOST=sis-db01.northbridge-tc.example
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Item 7 · item7_finaid_appeal_letter.txt

October 6, 2026

Northbridge Technical College
Office of Financial Aid
Attn: Satisfactory Academic Progress Appeals Committee

RE: SAP appeal for Spring 2027
Student: Jordan T. Ellery Student ID: N00478213
Program: Network Technology AAS

Dear Committee Members,

I am writing to appeal the suspension of my federal financial aid. During the Spring 2026 term I withdrew from three courses after my father lost his job in February. Our household income dropped from about \$61,000 to roughly \$23,500 for the year, and I took a second job working 32 hours a week to help cover rent and my younger sister's childcare. I could not keep up with my lab hours and fell below the 67 percent completion requirement.

My father started a new position in August, and I have reduced my work schedule to 18 hours a week. I met with my advisor, Ms. Whitfield, and we built an academic plan that limits me to 9 credit hours in Spring 2027 and includes weekly tutoring in the Learning Commons.

I have attached my father's termination letter, his new offer letter, my pay stubs, and my signed academic plan. I would be grateful for the chance to continue my program.

Sincerely,
Jordan T. Ellery
1427 Larkspur Court, Apt. 3
(555) 014-2296

TRAINING MATERIAL. Fictional student and college. Phone number uses the 555-01xx range reserved for fiction.

Exit Ticket

Submit through the form link in chat, or answer here and photograph it.

1. Which data tier in your own courses are you least sure how to handle, and why?

2. Name one AI task you will now require students to validate, and how they will show it.

3. On a scale of 1 to 5, how ready are you to run Lab 1 or Lab 2 with your own students?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 What would move you up one point?

Session 2 preview. The Northbridge story continues. The memo your team wrote today becomes the policy the next mission puts under pressure.