

AI SHOWCASE

AI in Action at UH

Practical Systems, Smarter Workflows, and Future Opportunities

Jatindera S. Walia

Director, IT

Center for Academic Support & Assessment,
University of Houston

Center for Academic Support & Assessment

- CASA Testing Centers
- Learning Management System
- Biometric Authentication
- Scheduling System
- Custom software tools
- Testing centers at GAR (**57,439 exams**), CBB (**37,032 exams**), UHSL (**3,611 exams**)
- Total of **98,082 exams** given in **2025**
- **New CASA Testing Center at KAB1, UH Katy – Spring 2026**



Katy Academic Building (KAB1)

Hours of Operation:

Tuesday - Friday: 10am - 3pm

 22400 Grand Circle Blvd.
Katy, TX 77540

Room: 209

[UH Katy Campus](#)



Take the elevators to
2nd floor



Follow directional signs
for room **209**

Path from the 2nd floor elevators to room#
209



Impact of Internet

Paying Bills

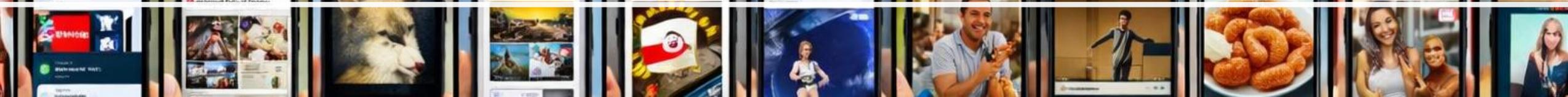
From Lines to Automated Payment





Impact of Internet

Now, I can use my time to enrich myself



AI Projects under works

- ChatGPT Launch
 - GPTs
 - Codex
- GWS Launch
 - Gemini, NotebookLM
- Performance of LLMs on Calc I Dataset
- Course Evaluation Comment Summarization
- Course Mate – Retrieval Augmented Generation
- VideoPoints
- Rating Assessments Using AI
- Rapid Development – Prompt to Deployed Application
- Image Generation

New AI Tools

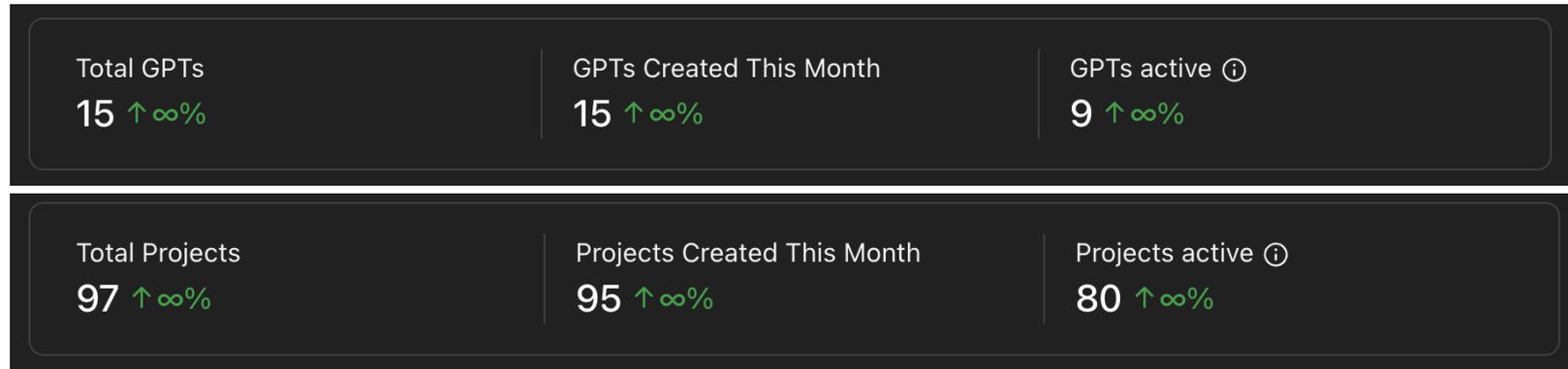
- Open AI – ChatGPT
 - Limited Launch
 - October 2025
 - About 250 faculty

- Google Gemini + NotebookLM
 - UH Main campus
 - Part of Google Workspace
 - January 2026
 - All UH faculty, staff and enrolled students

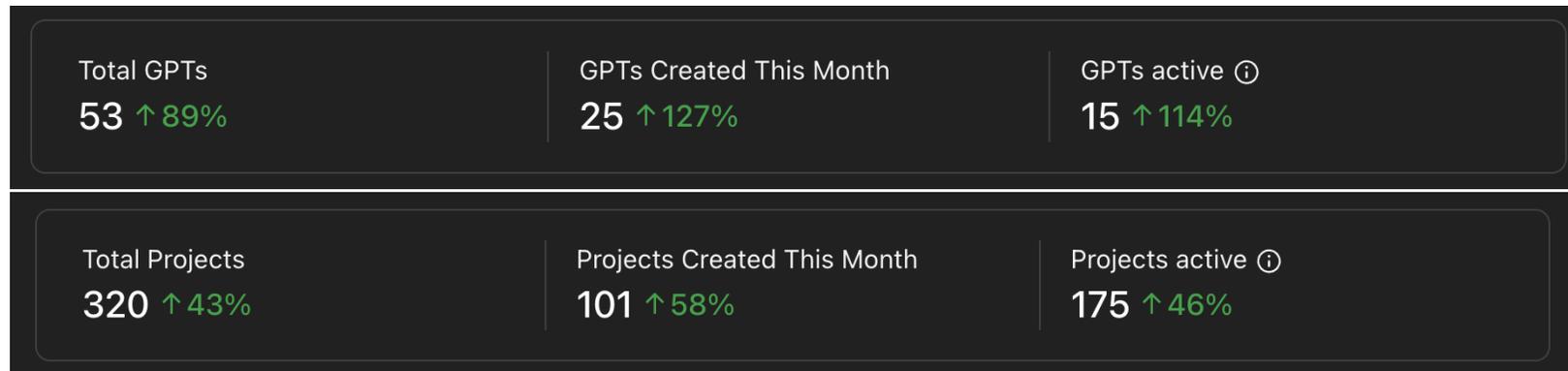


Gemini

ChatGPT – GPTs & Projects



OCTOBER
2025

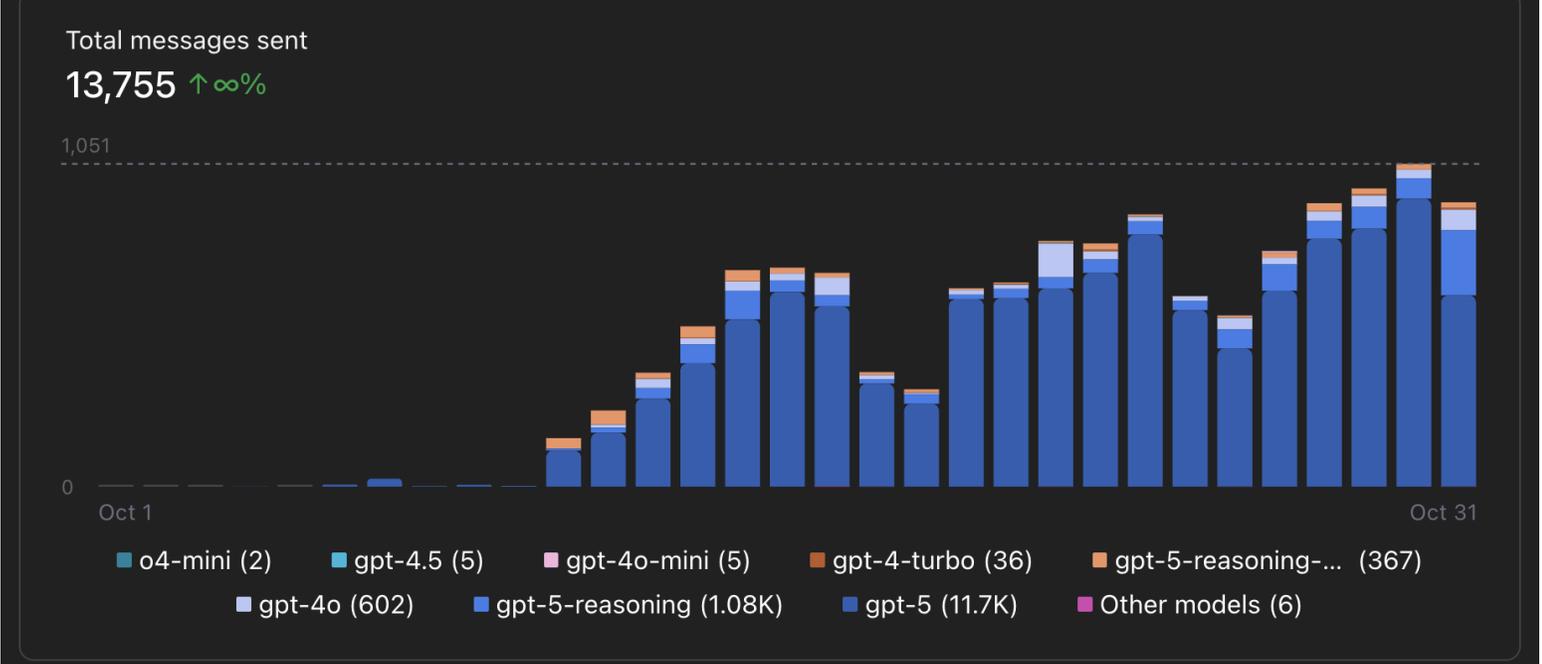


JANUARY
2026

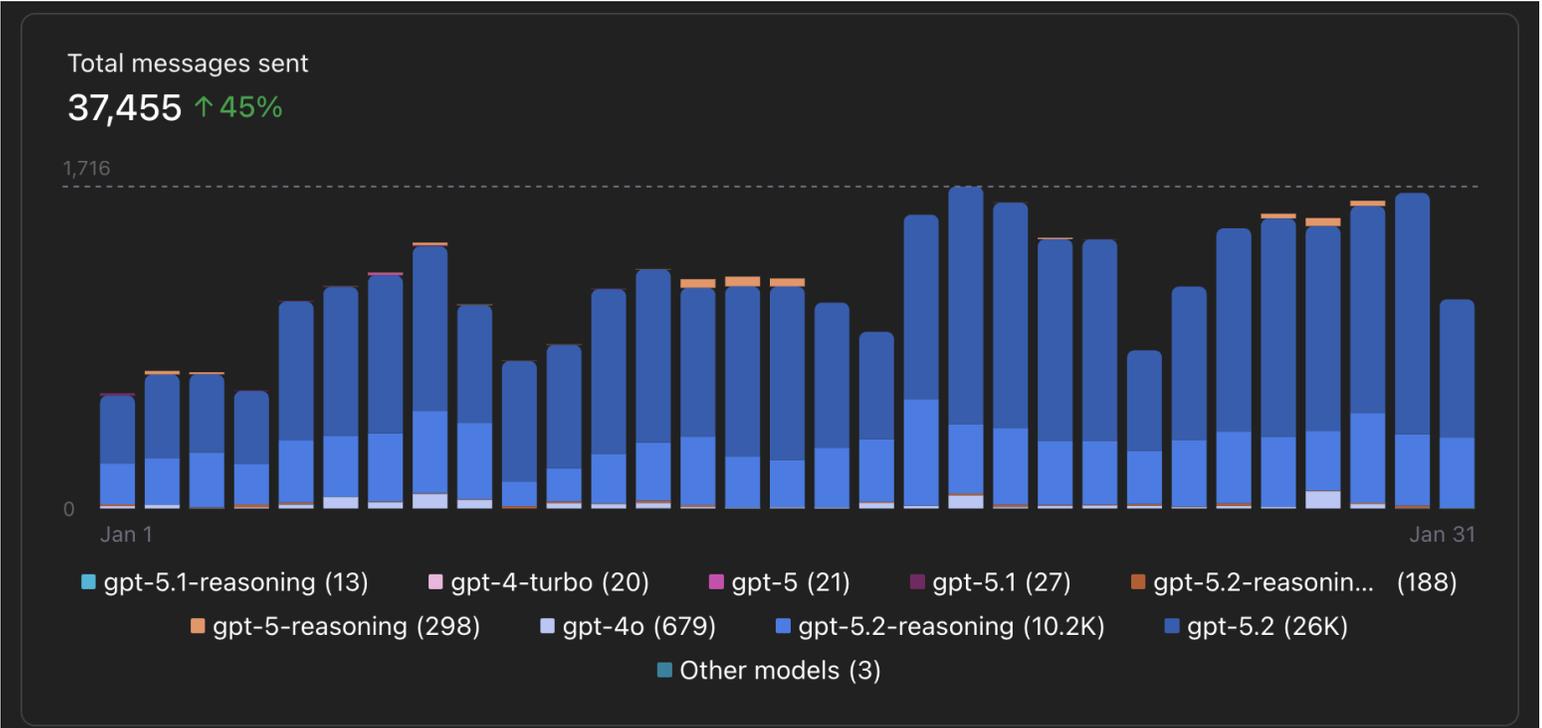
ChatGPT

Messages Sent

OCTOBER
2025



JANUARY
2026



Google Gemini

◆ Gemini for Workspace usage report

Review how Gemini is being used in your organization
[Learn more about Gemini for Workspace](#)

Showing data for the last 28 days

Active Gemini users

112

0.2% of 50,114 licensed users

Gemini

Generated content

◆ Gemini App

3.54K chats
by 112 users



Shailesh Mangrulkar

Admin, PROV-EIT Info Systems • Education Innovation and Tech





Sources

+ Add sources

Search the web for new sources

Select all sources

- Lecture01.pdf
- Lecture02.pdf
- Lecture04.pdf
- Lecture06.pdf
- Lecture07.pdf
- Lecture08.pdf

Chat

histogram is highly compressed 7 .

Analogy: Think of the gray levels in an image like the volume on a radio.

- **Brightness (Offset)** is like turning the master volume knob up or down; the whole range shifts louder (brighter) or quieter (darker).
- **Contrast (Scaling)** is like the difference between a whisper and a scream. Low contrast is like everyone speaking in a monotone volume (narrow range). High contrast (stretching) ensures the quietest sounds are silent and the loudest are booming, making the differences much easier to distinguish.

Save to note

Studio

- Audio...
- Video...
- Mind Map
- Reports
- Flashcards
- Quiz
- Infograp...
- Slide Deck
- Data Table

Histograms and Point... 22 sources · 1m ago

Fourier's Simple... 1 source · 56d ago

L16: 1 source · 56d ago

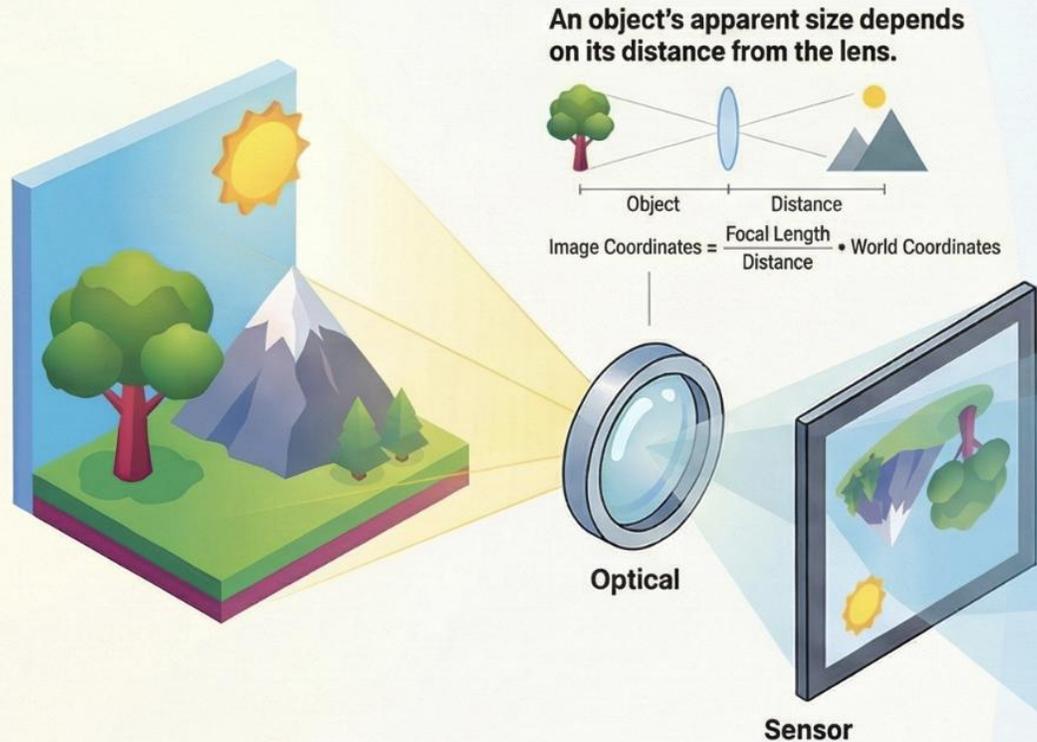
Add note

NotebookLM

Start typing... 22 sources

From Scene to NotebookLM Infographics

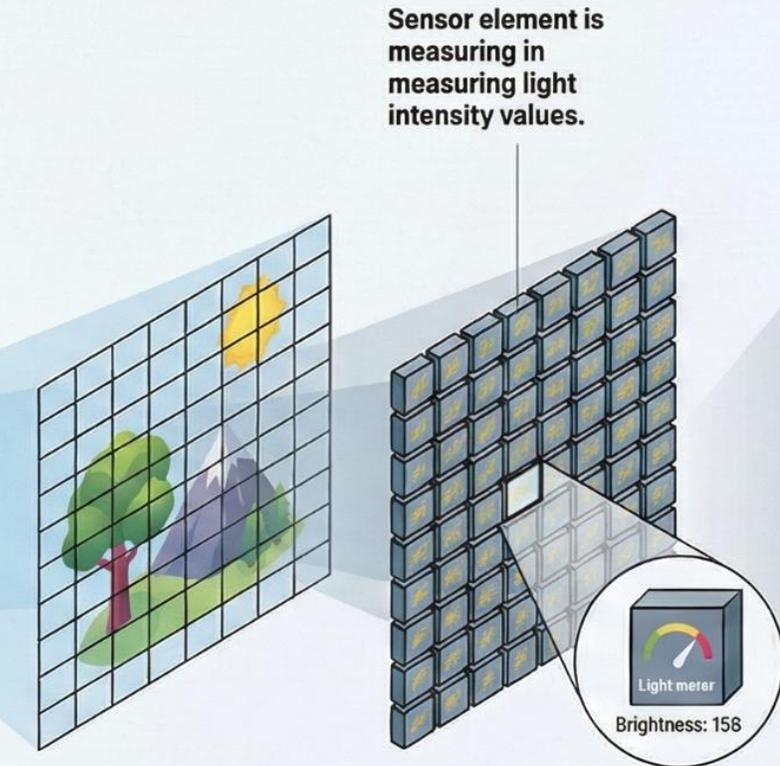
Stage 1: Capturing the Scene (Image Formation)



A lens projects light from a 3D scene onto a 2D plane.

This process, called perspective projection, maps real-world points onto a sensor or film.

Stage 2: Creating the Digital Data (Digitization)



Step 1: Sampling (Creating the Pixel Grid).

The continuous image is divided into a grid of discrete elements, called pixels.

Step 2: Quantization (Assigning Brightness Values).

Each pixel's brightness is measured and assigned an integer value from a limited range.

The Result: A Digital Image is a Matrix of Numbers.

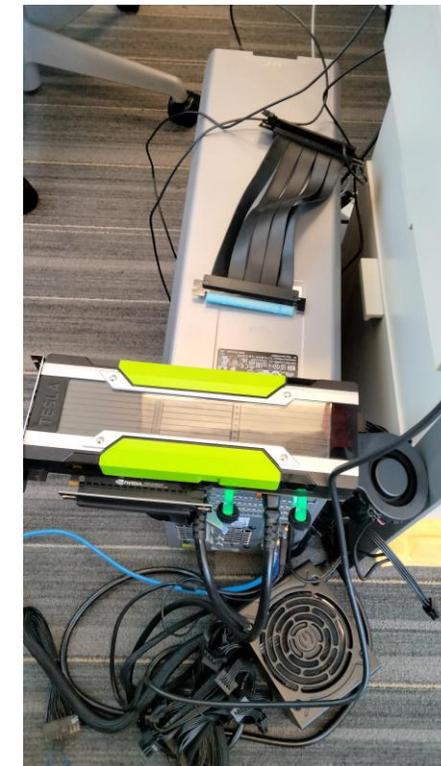
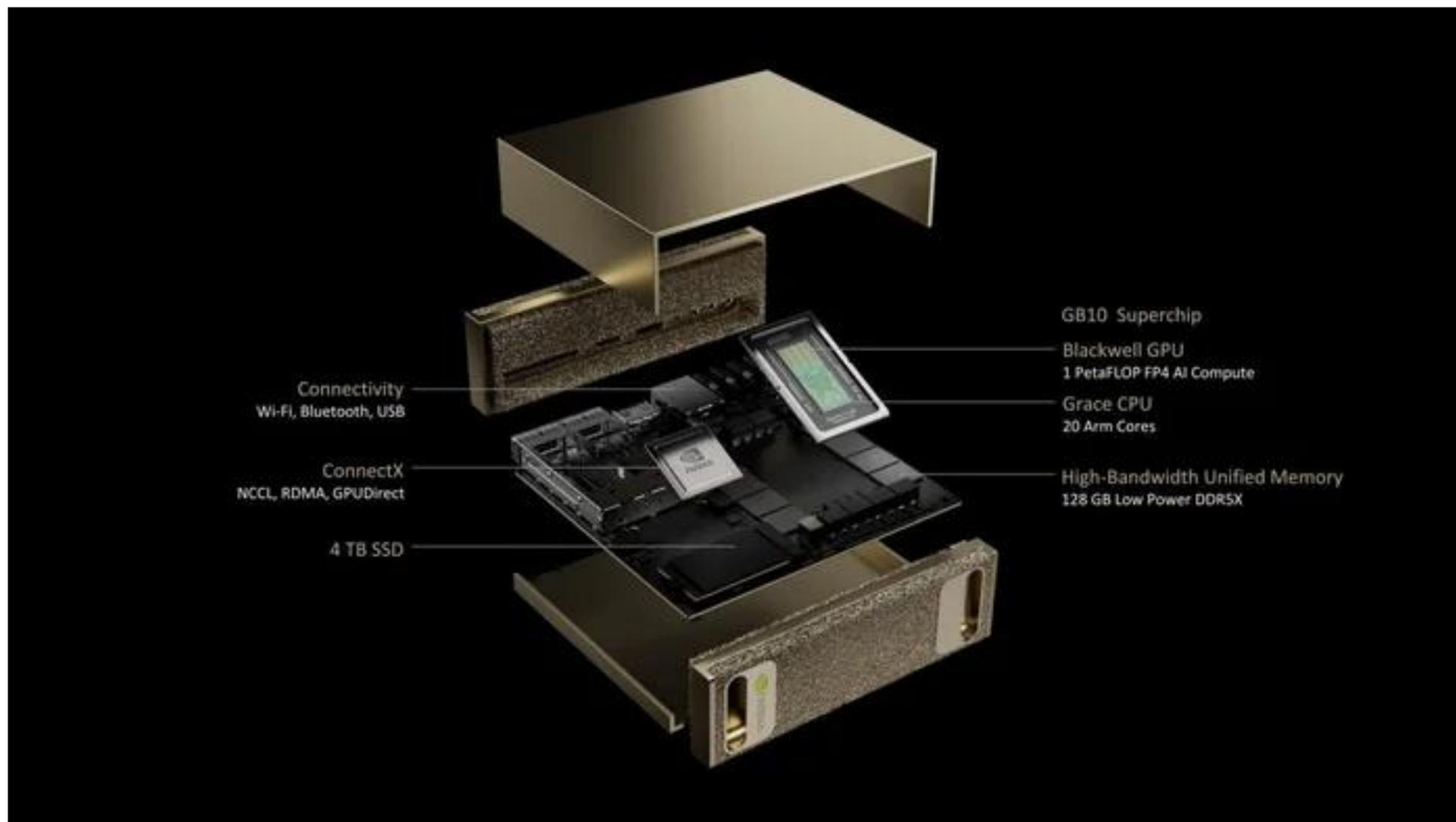
Each number in the matrix represents the brightness of a single pixel.

120	45	200	87	33	63	120	45	82	120
45	200	87	66	120	120	170	87	90	87
120	55	120	56	158	200	120	156	136	64
120	187	160	200	87	120	120	130	33	93
120	99	69	130	200	150	160	84	55	87
120	125	65	88	130	87	200	81	125	65
87	45	120	96	200	188	33	156	127	120
100	67	95	132	110	200	120	138	96	30
65	45	101	87	97	203	100	115	96	85
120	120	100	130	120	127	120	87	120	120

Data Storage Impact

Image Size (N x N pixels)	Gray Levels (k=1 bit)	Gray Levels (k=4 bits)	Gray Levels (k=6 bits)
256 x 256	65,536 bits	262,144 bits	534,388 bits
512 x 512	262,144 bits	1,048,578 bits	2,097,152 bits
1024 x 1024	1,048,578 bits	4,184,304 bits	8,358,608 bits

New Hardware – Nvidia DGX Spark



Open AI OSS – 120b

```
● jay@spark-0596:~/Sandbox/CourseEvalSummarizer$ ollama list
NAME                ID                SIZE             MODIFIED
llama3.2:latest     a80c4f17acd5     2.0 GB           4 hours ago
gpt-oss:120b        a951a23b46a1     65 GB            2 days ago
gemma3:1b           8648f39daa8f     815 MB           4 days ago
gpt-oss:20b         17052f91a42e     13 GB            3 months ago
llama3.2:3b         a80c4f17acd5     2.0 GB           3 months ago
○ jay@spark-0596:~/Sandbox/CourseEvalSummarizer$ ollama run gpt-oss:120b
>>> /show info
  Model
    architecture      gptoss
    parameters         116.8B
    context length     131072
    embedding length   2880
    quantization       MXFP4

  Capabilities
    completion
    tools
    thinking

  Parameters
    temperature       1

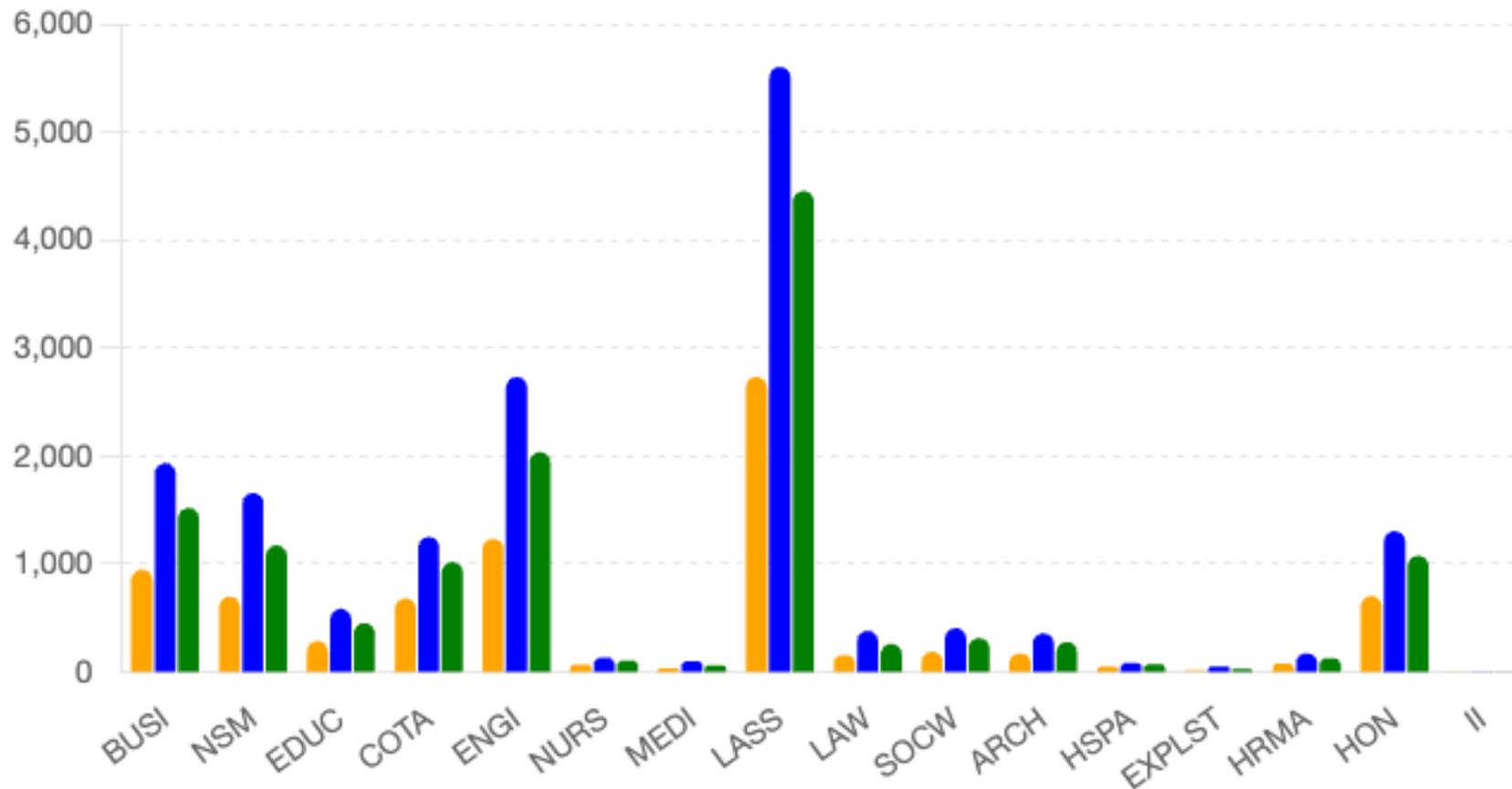
  License
    Apache License
    Version 2.0, January 2004
    ...
```

Course Evaluation Comments Summarization

- LLMs are really good at summarization
- We used Llama 3.2:3b model
- We ran the evaluation for Fall 2025 on three different hardware
 - Dell workstation with Tesla P40 card
 - NVIDIA DGX Spark
 - Dell Server with dual A40 cards
- This helped us bench the different hardware and get a feel for their production capabilities

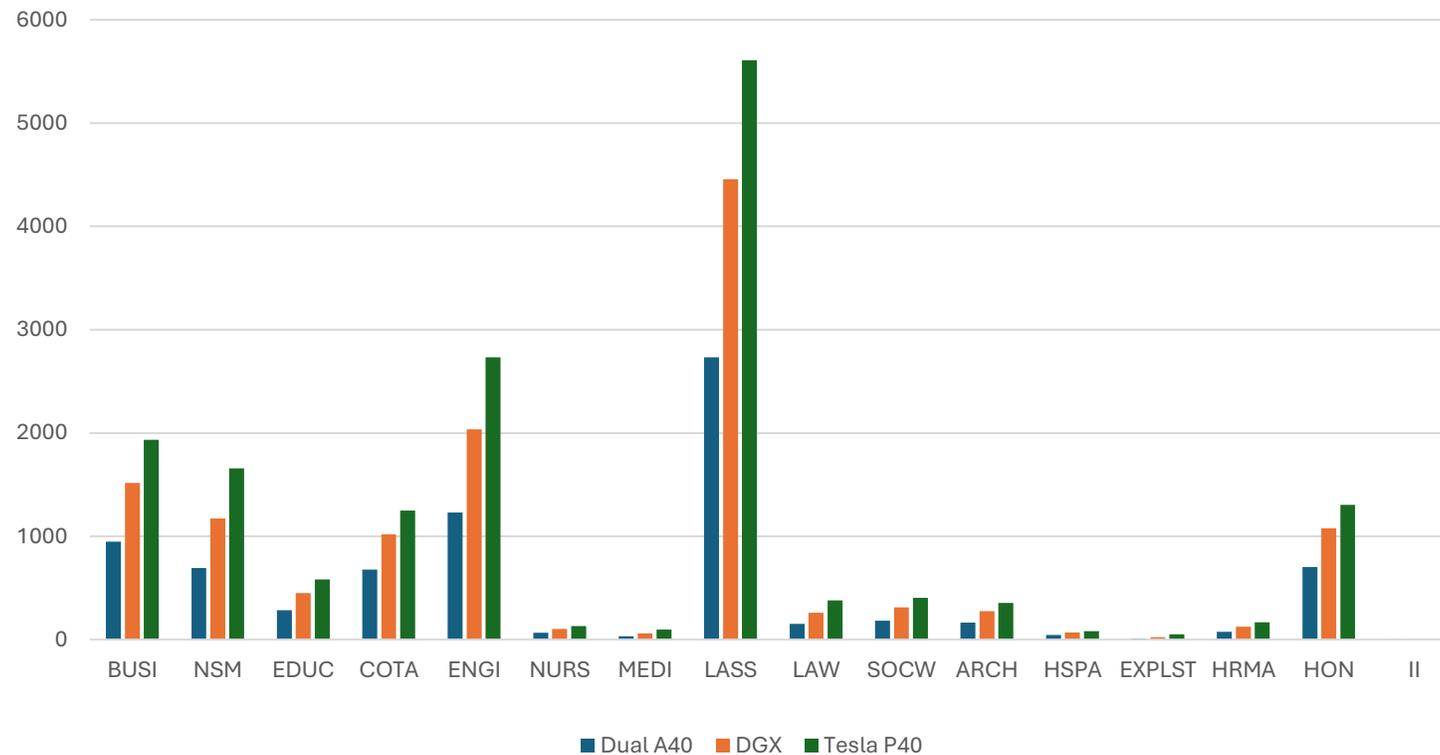
Course Evaluation – Hardware Results

Fall 2025 – 143,636 comments for 15 colleges – ChatGPT graph

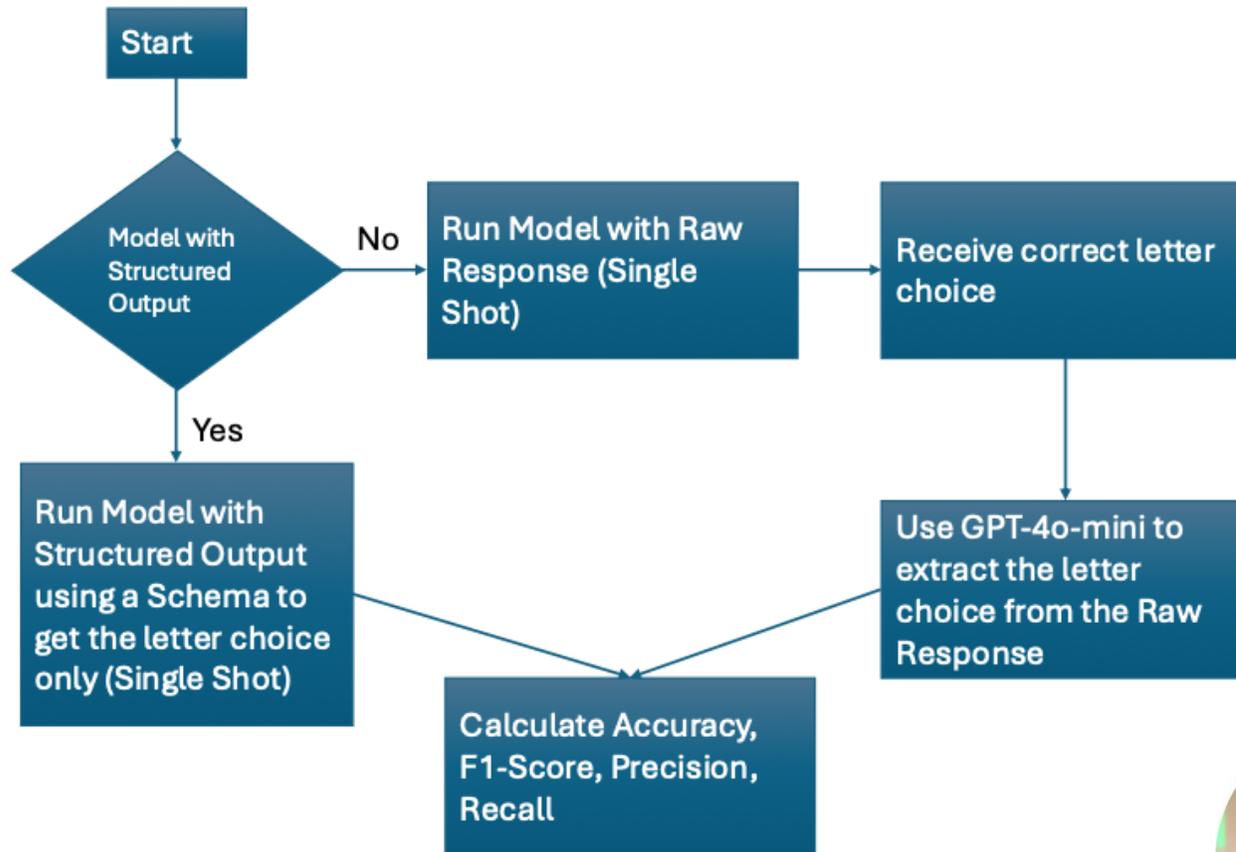


Course Evaluation – Hardware Results

Fall 2025 – 143,636 comments for 15 colleges – Excel Graph



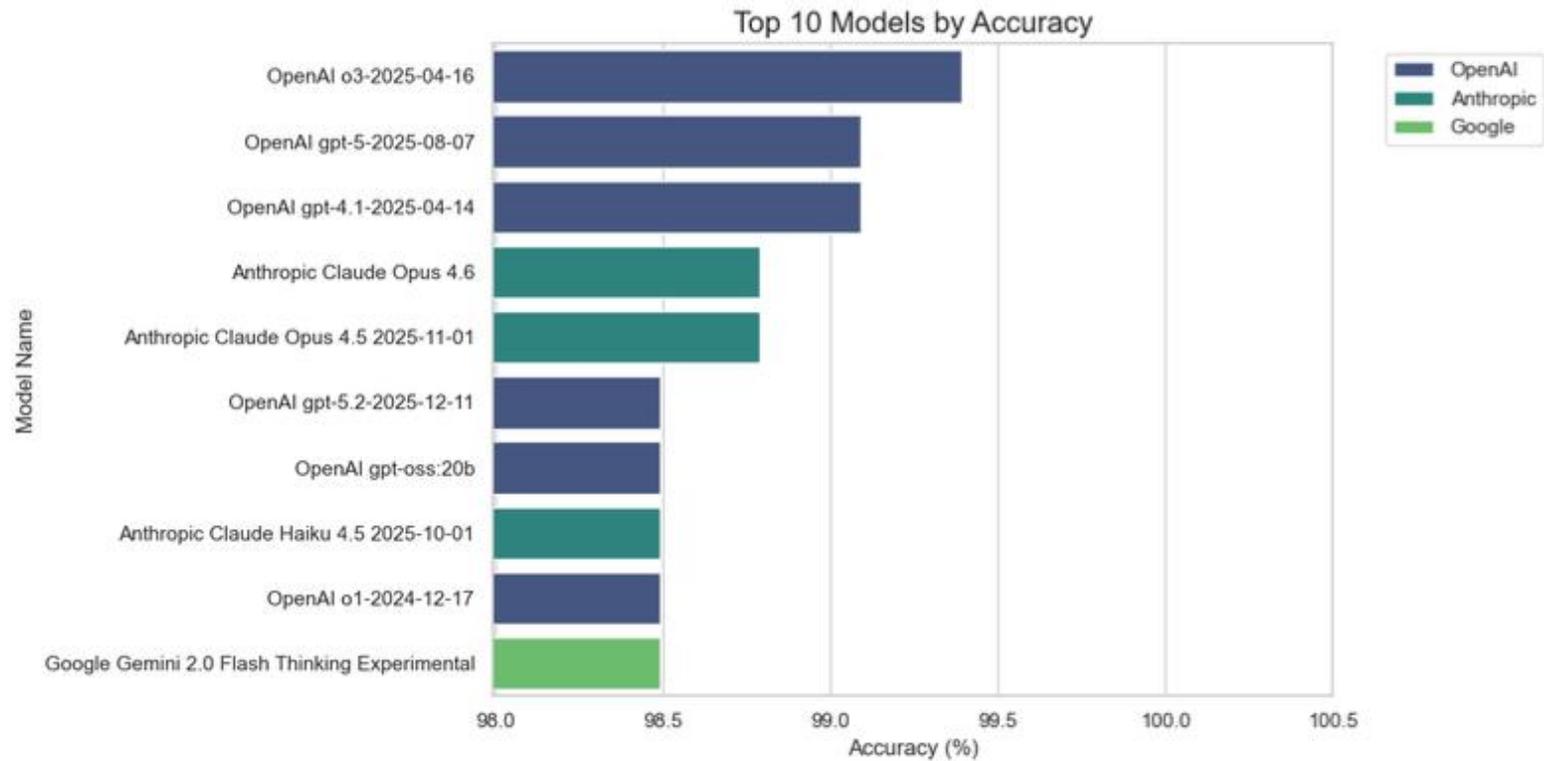
How good are LLMs at Math?



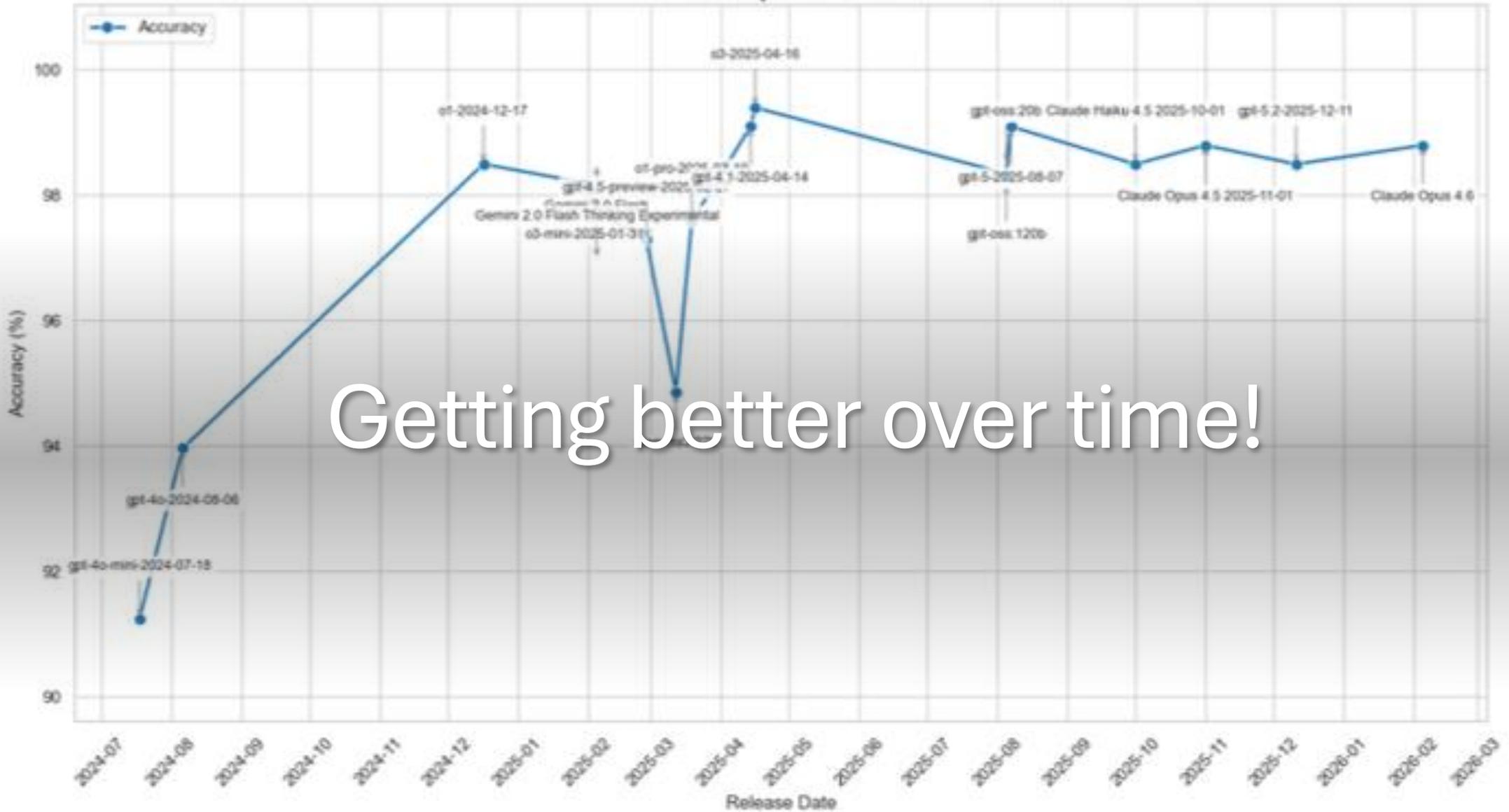
Mansib Mursalin
Researcher @ The PREMIER Center
College of Pharmacy
University of Houston



How good are LLMs at Math?



Accuracy Over Time



Getting better over time!

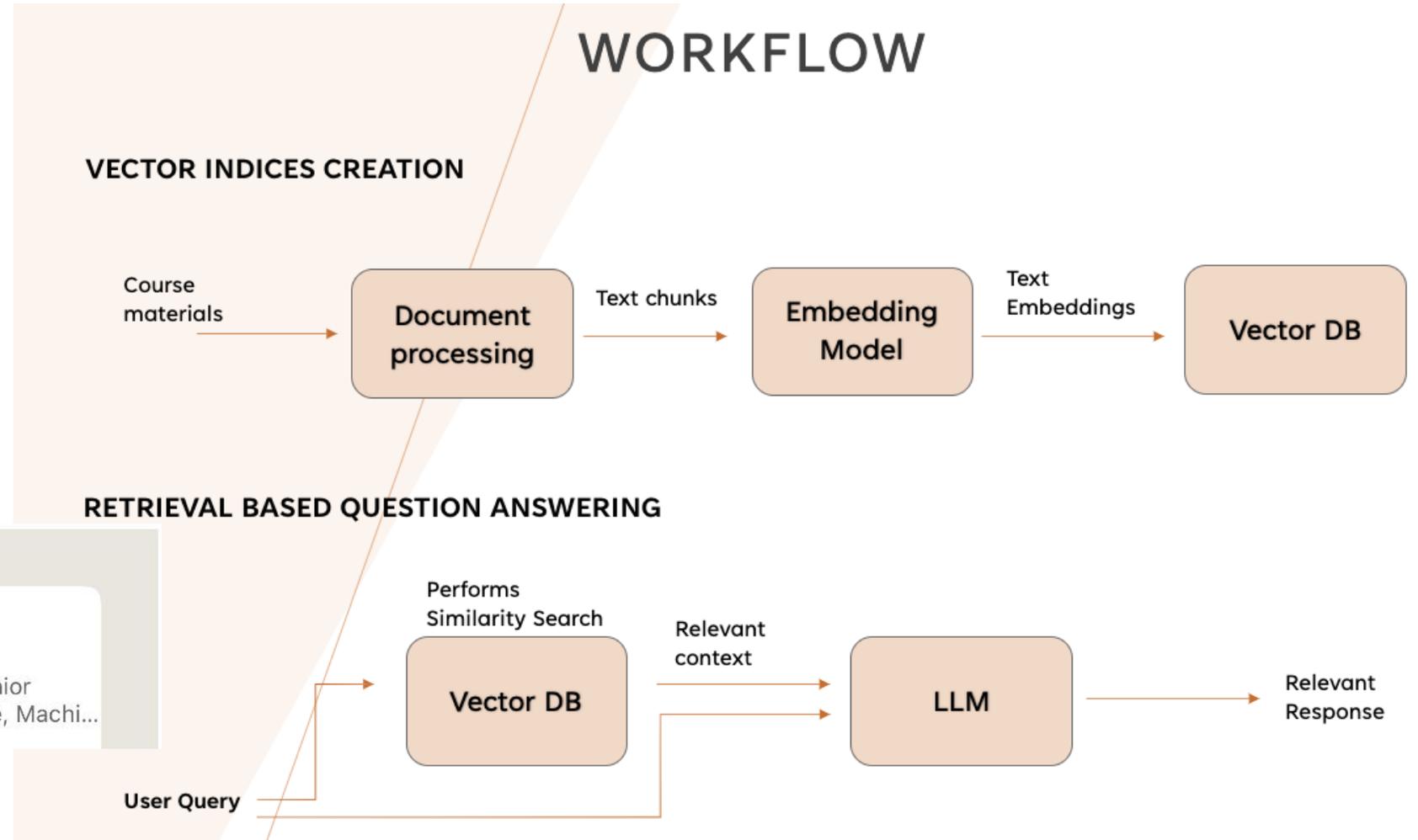
CourseMate

Snehitha
Domakuntla,
Grad Student



Snehitha Domakuntla

Fullstack Engineer - Applied AI | ex-Senior Associate@State Street | Artificial Intelligence, Machi...

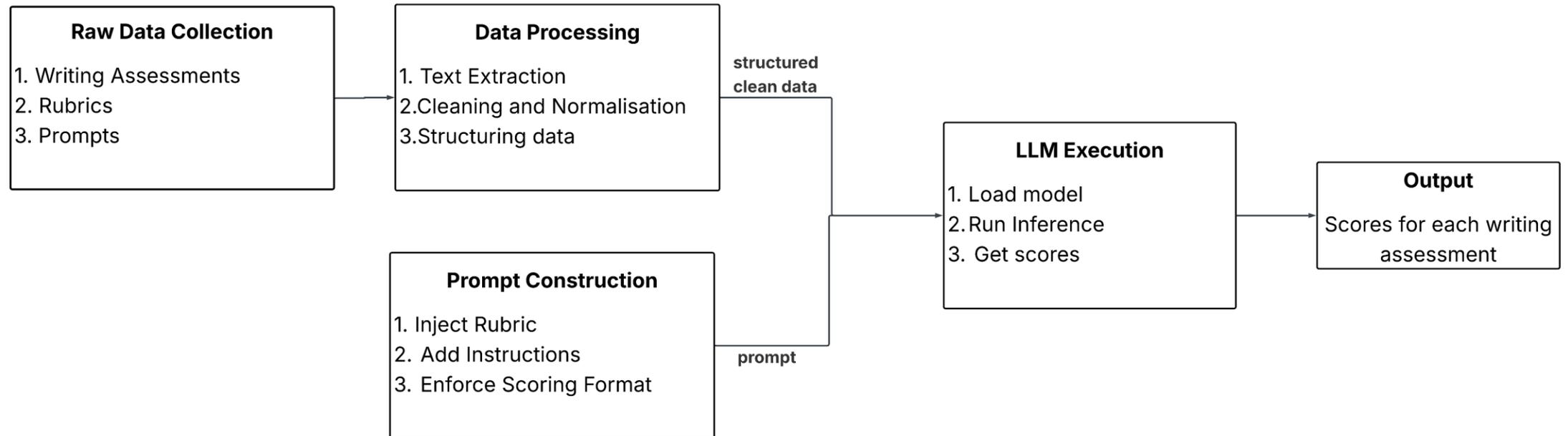


Fall 2025 – SOCW7356 Trial run

- Model trained on **SOCW7356** materials (Lecture material, kanopy case study videos)
- Automated evaluation of assignments using standard rubrics.
- Output includes -
 - Category(rubric category)-wise scores
 - Tailored feedback
 - Virtual Teaching Assistant

Rating Assessments Using AI

Architecture



Nguyen, Logan B
Lan Administrator
Education Innovation and Tech



Gottimukkala, Sarayu Varma
Graduate Student

Rating Assessments Using AI

Results

Model Name	Model Family	Approx. Model Size	Architecture Type	Deployment Type	Accuracy (from code)
ChatGPT-4.1	GPT (OpenAI)	Not publicly disclosed (large-scale)	Transformer (Instruction-tuned)	API-based	91.7% (highest)
GPT-OSS-120B	GPT-OSS	~120 Billion parameters	Transformer (Open-source scale)	Self-hosted / OSS	75% (close to ChatGPT-4.1)
LLaMA 3.2-1B	LLaMA	~1 Billion parameters	Transformer (Lightweight)	Local / Self-hosted	58.3% (lowest)
DistilGPT-2	GPT-2 (Distilled)	~82 Million parameters	Transformer (Distilled)	Local	66.7%

VideoPoints

- Videopoints.org
- Enhance Lecture Videos with Indexing & Summarization
- Using various AI tools to generate transcripts, visual and textual summarizations
- Part of research Team

BIOL 2321_Microbiology for Science Majors
Richard Knapp - Biology

No	Lecture Name
1	2321_1_20_26_Lecture
2	2321_1_22_26_Lecture
3	2321_1_27_26_Lecture
4	2321_1_29_26_Lecture
5	2321_2_03_26_Lecture
6	2321_2_05_26_Lecture

..... BIOL 2321_Microbiology for Science Majors - 2321_1_22_26_Lecture Help

ANNOUNCEMENTS

Wk	Day	Date	Chapter	Topic	Canvas Quiz Available
1	Jan 20 th	(Tu)	Syllabus	Course Overview	
2	22 nd	(Th)	1	Start Unit I Microbial Life - An Overview	
3	27 th	(Tu)	1	Microbial Life	Weekly Quiz 1 Due Feb 2
4	29 th	(Th)	13	Energetics & Catabolism - Pt 1	
5	Feb 3 rd	(Tu)	13	Energetics & Catabolism - Pt 1 & Pt 2	Weekly Quiz 2 Due Feb 9
6	5 th	(Th)	14	Organotrophy & Lithotrophy; Phototrophy - Pt 1	
7	10 th	(Tu)	14	Organotrophy & Lithotrophy; Phototrophy - Pt 1 & Pt 2	Weekly Quiz 3 Due Feb 16
8	12 th	(Th)	22.2, 22.3	Microbial Ecology: Hydrologic cycle, Nitrogen cycle	
9	17 th	(Tu)	22.2, 22.3	Microbial Ecology: Hydrologic cycle, Nitrogen cycle	
10	19 th	(Th)	3	Start Unit II: Prokaryote Cell Structure/Function - Pt 1	Unit Quiz 1 Due Feb 23
11	24 th	(Tu)	3	Prokaryote Cell Structure/Function - Pt 1 & Pt 2	
12	Feb 26 th - 27 th	(Th/Fr)	Exam 1 @ CASA: CH's 1, 13, 14, 5, 22		

• Clickers
 • Nothing is due until February 2nd → Smartwork CH 1, Wkly Quiz 1
 • Today: 1st half of Chapter 1

© Distribution of this video is restricted by its owner

Speed 1x Search Inside the Video

00:01 05:43 09:51 15:47 22:37 26:59 31:17 35:15 42:15 46:47 54:55 58:59 68:25

https://new.videopoints.org/public/vpp/video/1/v9233/thumb/_L1271.jpg

Transcript
Auto Highlight On Font-size A+ A- X

00:06 was. Hey, folks, uh, welcome. Um, Thank you. So
00:22 ,today is basically, I call it the Microbiology 101. So we're
00:28 just gonna
00:28 kind of, we're gonna do cover um Basics of micro of microbe
00:35 kind of an overview, OK, uh , we'll figure out how you can
00:39 find
00:39 them, what they are, what are the different types of them,
00:43 how do
00:43 we categorize them, um, those historical stuff, um, basically
00:49 try to,
00:49 uh, finish up the first half of this, uh, chapter, OK.
00:53 So, um, I sent an email maybe an hour or two ago, so
00:59 , uh, The, uh, weather , right? So if you're not aware
01:03 of
01:03 there's the quote, uh, I think it's the right quote from Game
01:07 of
01:07 Thrones. Winter is coming. OK. Um, this weekend, I think
01:12 Friday
01:12 night actually. OK. So certainly, uh, Saturday will be
01:18 impacted. Sunday
01:18 supposed to be the worst. So, and that's, uh, freezing temps,
01:23 highest not highest at freezing. Uh, Sunday, I think below
01:29 freezing, uh,
01:29 , Sunday sleet, right? So, um, but for some strange reason,
01:37 UFH has said nothing. I have not seen an announcement
01:41 from, uh, it's
01:41 called (H) Emergency Preparedness Team. So I , I, I, they're
01:41 waiting. So,
01:41 uh, I'm assuming it will impact us in some way. Although I'm
01:48 going under
01:48 the assumption. Classes are normal classes next week, but
01:54 that can change. So
01:58 the bottom line is. Um, just , you, you will be notified.
02:03 You like me are gonna find out, find this out at the same
02:07 time,
02:07 OK? So there's no need to email beforehand saying, are
02:10 we're gonna have classes
02:10 , I don't know, right? So it's all depends on what I do,
02:13 what (H) does, right? So, um, and, uh, like I
02:19 said, nothing's been said yet. And I checked, uh, at 10:00
02:23 a.m.,
02:23 I think was the last time I looked . So, uh, but you'll get
02:25 a text on your phone from them if , um, Uh, classes or
02:25 schools
02:31 closed, right? So as of now , everything's Normal, OK? So
02:31 just
02:38 be aware, right? And so it's , uh, if and likely
02:43 when the announcement is made, then I'll email you, OK?
02:43 Uh, and
02:50 say, OK, this is how the schedule will change. Now, for us
02:52 in the lecture, it'll just be bumped back, or I'll drop
02:52 something. Um
02:58 , I likely will drop chapter 22 or something. I don't know.
02:58 We'll just
03:01 wait, let's just wait and see until something happens, right?
03:01 So that's all
03:03 we can do. So, um, all right, clickers. So people are
03:08 still kind of, I got a couple of emails, not aware, you know
03:11 , so clickers during this period to the twenty-ninth are gonna
03:11 be collected, data will
03:16 be taken in, we'll post on campus . People go, I got zeros,
03:19 I got zeros. I'm failing the class. No. OK. It's meaningless.



Jaspal Subhlok
Professor • Computer Science



AI utilization by Dev Group

- Reduced development time and costs
- Intelligent code suggestions and auto-completion
- Faster debugging and error resolution
- Code refactoring and optimization recommendations
- Instant explanations of complex code and concepts
- Rapid prototyping and boilerplate generation
- Assistance with API integration and documentation
- Improved test case generation and validation
- Support for learning new frameworks and technologies
- UI/UX



Zuhair Abdulhameed

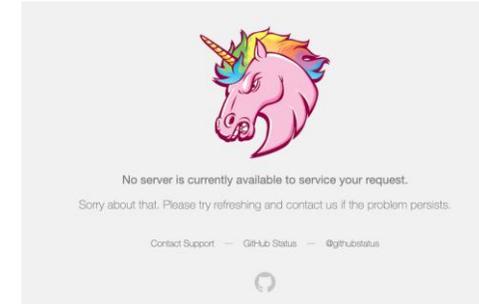


Purav Patel



Rogelio Rios Jr.

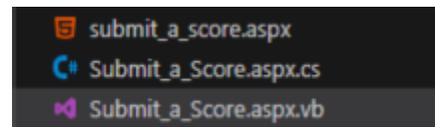
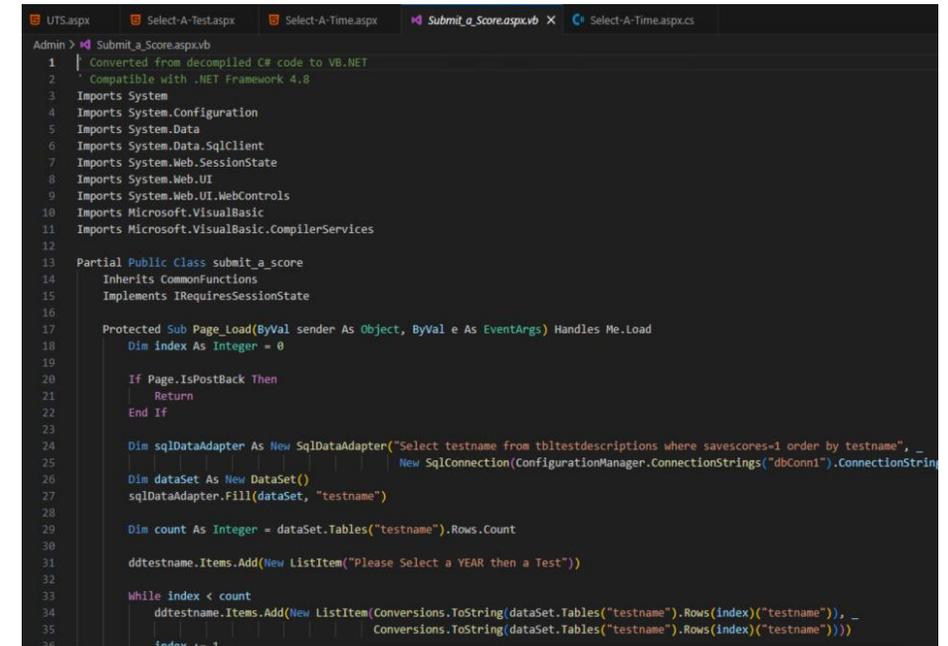
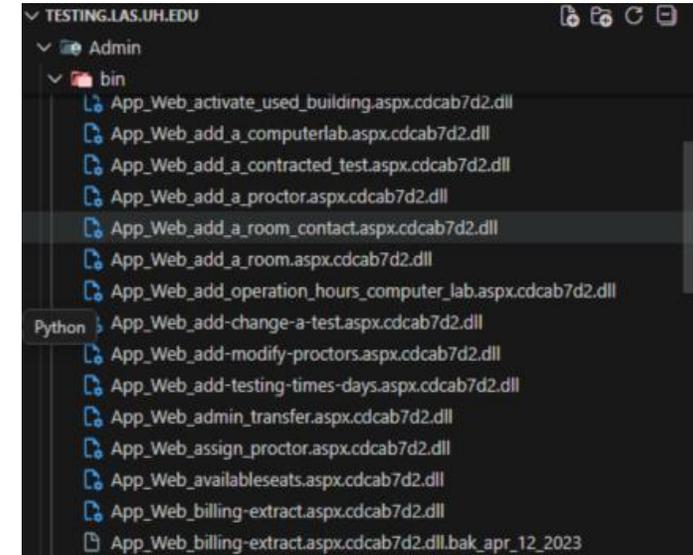
Github CoPilot – 11 am on Feb 9



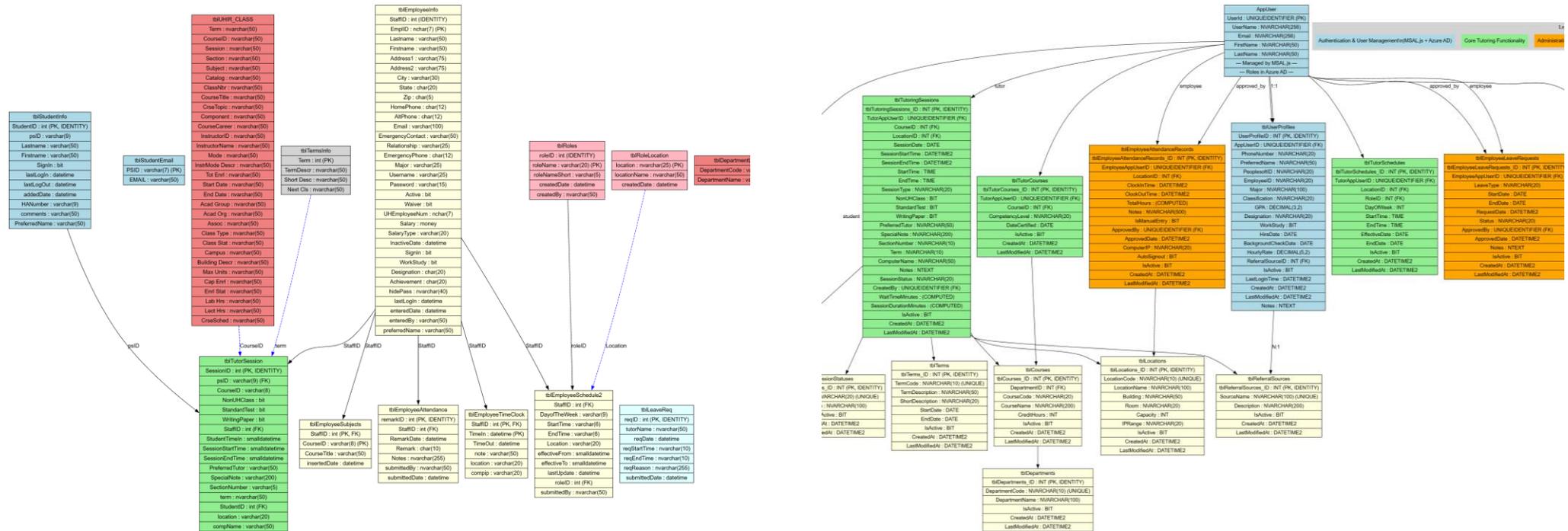
6 members with access to Copilot		☰ ↑ Sort ▼
 hward2		No activity yet
 uhdacarter		Last activity on Jan 8
 Zuhair-A		Last activity 8 hours ago
 Puravpatel13		Last activity 52 minutes ago
 jay-walia		Last activity 46 minutes ago
 rrios5		Last activity 44 minutes ago

AI-Assisted Code Recovery

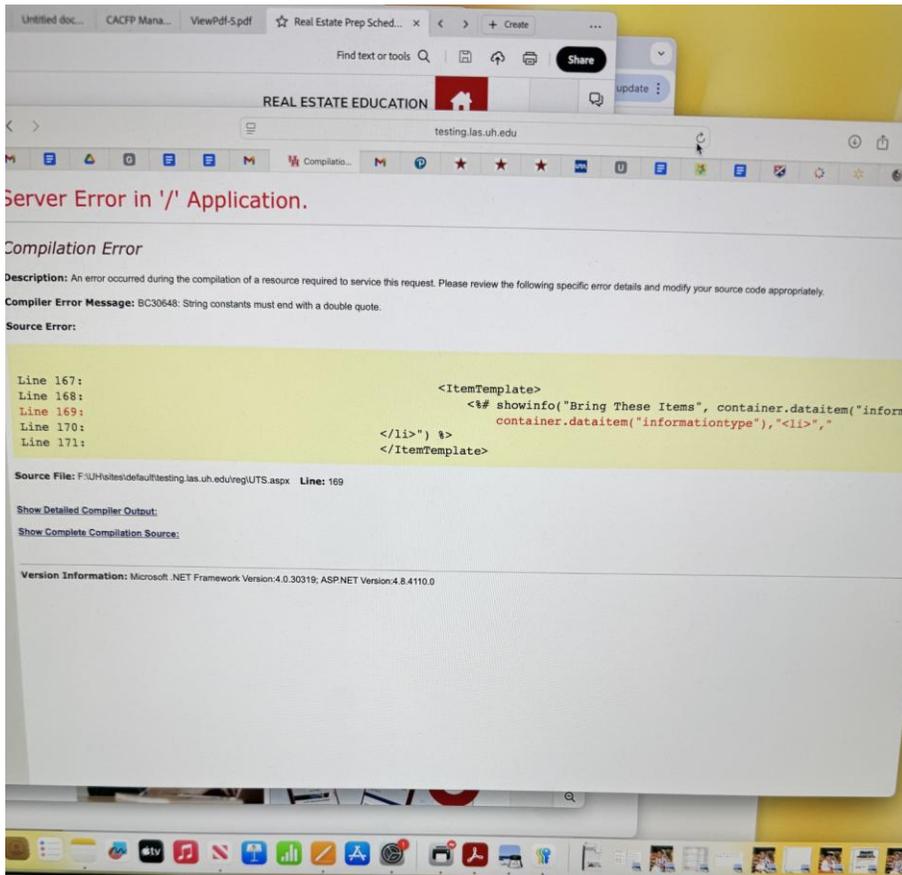
- Application ASPX page was tied to a compiled .dll after original source code was lost
- Used JetBrains DotPeek to decompile the assembly and recover readable logic
- Provided the decompiled output to GitHub Copilot
- AI reconstructed a fully compatible **VB.NET (.NET Framework 4)** code file
- Rebuilt source was validated and reintegrated into the application
- **Impact:** Restored missing source code in hours instead of days, saving ~4+ hours of manual reconstruction



AI - Database schema upgrade



AI Assisted Production Issue Resolution



- Student scheduled an exam for a specific date, but they got an error in the confirmation page.
- Testing Services Director forwarded the exact error message received by the user
- Error details and related files were provided to AI for analysis
- AI quickly identified the root cause and recommended a fix
- **Impact:** Issue resolved in minutes, saving 1+ hours of manual debugging and log analysis

AI Assisted UI/UX Development

UNIVERSITY of HOUSTON
LAUNCH

Welcome! [Patel, Purav J](#)
THU, FEB 05 @ 14:19:47

ADD NEW TUTOR TO SYSTEM

OPTIONS

- Monitor Activities
- Sign Out Tutor
- Status Display on TV
- Active Tutors
- Support Staff
- InActive Tutors
- Add New Tutor
- Add New Student
- Add Student Session
- Change Tutor's Courses
- Change Tutor's Schedule
- Search for a Student

TUTORS SCHEDULE & COURSES

- Daily Roster
- Weekly Tutors' Schedule
- Tutors Courses & Schedule
- Tutors Work Schedule
- Tutoring Courses Schedule
- Schedule By Courses and Tutors
- Attendance Records By Name
- Attendance Records By Dates
- Attendance Records By Day
- Attendance Remarks
- Attendance Report: NS/Late/Early
- Tutors' Leave Requests
- Future Tutors' Schedule
- Future Weekly Tutors' Schedule
- Tutors' Not Signed In
- Tutors' Forgot to Sign Out
- Tutors' Signed in Late

TUTORING REPORTS

EmpID:

Firstname:

Lastname:

Address1:

Address2:

City:

State:

Zip:

HomePhone:

AltPhone:

Email:

EmergencyContact:

Relationship:

EmergencyPhone:

Major:

Active:

Waiver:

Salary:

SalaryType:

WorkStudy:

Designation:

Achievement:

[Insert](#) [Cancel](#)



University of Houston
University of Houston System Success Center

EIT Portal > EIT Portal > New

[Back to Tutors & Support Staff](#) **New Tutor**
Create a new tutor profile

Create New Tutor

User Selection

Select Existing Azure User (optional)

-- New user (manual entry) --

Basic Information

EmpID * First Name * Last Name *

Do not use CougarNet ID. Enter the PSID (student/tutor EmpID).

Email * Active

Contact Information

Home Phone Alt Phone Address 1

Address 2 City State

Zip

Emergency Contact

Support
Feedback

Patel, Purav J
ppatel58@cougar.net.uh.edu

AI Assisted UI/UX Development

UNIVERSITY of HOUSTON
LAUNCH

Welcome! Patel, Purav J
THU, FEB 05 @ 14:24:47

UPDATE TUTOR'S COURSES

Select tutor: Abdellatif, Lola

CourseID	Course Title	Option
ENGL2360	Western World Lit I--Honors	Delete
ENGL2361	Western World Lit II--Honors	Delete
MATH1314	College Algebra	Delete
MATH2312	Precalculus	Delete
MATH2413	Calculus I	Delete
MATH3321	Engineering Mathematics	Delete
PHYS2325	University Physics I (lecture)	Delete

Add new course: For Abdellatif, Lola

Select subject:

Select course:

TUTORS SCHEDULE & COURSES

- Daily Roster
- Weekly Tutors' Schedule
- Tutors Courses & Schedule
- Tutors Work Schedule
- Tutoring Courses Schedule
- Schedule By Courses and Tutors
- Attendance Records By Name
- Attendance Records By Dates
- Attendance Records By Day
- Attendance Remarks
- Attendance Report: NS/Late/Early
- Tutors' Leave Requests
- Future Tutors' Schedule
- Future Weekly Tutors' Schedule
- Tutors' Not Signed In
- Tutors' Forgot to Sign Out
- Tutors' Signed In Late

TUTORING REPORTS



University of Houston
Support Staff: 12 total (12 active, 0 inactive)

Search courses...

Patel, Purav J - Course Assignments

Course	Level	Certified	Assigned	Actions
Accounting Information Systems	Intermediate	11/10/2025	11/17/2025	<input type="button" value=""/>
Algorithms and Data Structures	Expert	11/13/2025	11/15/2025	<input type="button" value=""/>
Data Structures	Intermediate	11/12/2025	11/20/2025	<input type="button" value=""/>
Intro Computer Science II	Expert	11/11/2025	11/20/2025	<input type="button" value=""/>
Introduction To Computing	Advanced	11/10/2025	11/20/2025	<input type="button" value=""/>
Operating Systems	Expert	11/15/2025	11/20/2025	<input type="button" value=""/>
Programming and Data Structure	Advanced	11/8/2025	11/20/2025	<input type="button" value=""/>

Department * Course * Competency Level Date Certified

Choose de... Select de... Select level mm/dd/yyyy

Page 1 of 1

« First < Prev Next > Last »

UI/UX

New Dev

Welcome back, Rogelio

Track your progress, review this semester, and finalize next semester's schedule.

Enrollment window: Open

CURRENT CREDITS 10 In progress this semester	CUMULATIVE GPA 3.42 +0.12 from last semester	NEXT CREDITS PLANNED 0 Draft for Summer 2026	MAJOR Computer Science Catalog year: 2023-2024
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Your schedule for Summer 2026 is not finalized.
Complete your schedule builder steps to lock in classes before registration closes.
[Open Schedule Builder](#)

SEMESTER OVERVIEW

Spring 2026 vs Summer 2026

Spring 2026 - 8/25/2025 - 12/11/2025	Summer 2026 - Planned
Current semester progress Overall progress: 100% Started: 8/25/2025 Ends: 12/11/2025	Next semester plan Schedule builder progress: 0% 0 of 4 steps completed
Active courses: 3 Credit hours: 10 Online / hybrid: 1 / 1	Planned courses: 0 Planned credits: 0 Conflicts: 0

SCHEDULE BUILDER

Summer 2026 setup

Overall progress: 0%

You can return to any step to adjust preferences before you enroll.

- Step 1 - Confirm major & catalog**
Degree plan confirmed from PeopleSoft.
- Step 2 - Import requirements
Remaining requirements synced from PeopleSoft.
- Step 3 - Choose classes & sections
Select preferred sections and meeting times.
- Step 4 - Review & finalize schedule
Check for conflicts and confirm final schedule.

[Continue schedule builder](#)

[View full instructions](#)

TODAY AT A GLANCE

Mon - 1 classes - on campus

Week view

10:00	COSC 1336 - ENGR 121 Programming I - In-Person	1000-1050
Anytime	POLS 1336 - Online U.S. & Texas Government - Online	Async

QUICK ACTIONS

Explore your classes and schedule views

View classes as Kanban Group by semester and status (planned, enrol)	Timeline view See your classes laid out across the week and	Build next semester schedule Guided steps using PeopleSoft data and degr	Export schedule Build a schedule to enable export.
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EXPORT & SHARE

Keep your schedule with you

[Download PDF](#) [Share with advisor](#)

[Export to calendar](#) [Copy summary link](#)

CURRENT SEMESTER

Spring 2026 classes

3 courses - 10 credits

COSC 1336 - Programming I In progress Section 15001 - Dr. Patel - 3 credits Mon, Wed, Fri 10:00 AM - 10:50 AM ENGR 121 Progress: 100% Grade: A
MATH 2414 - Calculus II In progress Section 16002 - Dr. Lin - 4 credits Tue, Thu 12:00 PM - 1:15 PM SEC 310 Progress: 100% Grade: B+
POLS 1336 - U.S. & Texas Government In progress Section 33002 - Prof. Diaz - 3 credits Asynchronous Online Progress: 100% Grade: A-

NEXT SEMESTER

Summer 2026 planned classes

0 courses - 0 credits

No schedule planned yet
Start building your schedule for Summer 2026.

[Build your schedule](#)

Model Context Protocol

Empower your LLM

```
[McpServerToolType]
public static class CalculatorTool
{
    [McpServerTool, Description("Adds two numbers")]
    public static string Add(int a, int b) => $"Sum: {a + b}";

    [McpServerTool, Description("Subtracts b from a")]
    public static string Subtract(int a, int b) => $"Difference: {a - b}";

    [McpServerTool, Description("Multiplies two numbers")]
    public static string Multiply(int a, int b) => $"Product: {a * b}";

    [McpServerTool, Description("Divides a by b")]
    public static string Divide(int a, int b) => b != 0 ? $"Quotient: {a / b}" : "Error: Division by zero";
}
```

what is 2 by 3

Multiply >

The result of 2 multiplied by 3 is 6.

can you tell me the table of 2 upto 10?

Sure! Here's the multiplication table of 2 up to 10:

Used 10 tools >

Multiplication Table of 2:

- $2 \times 1 = 2$
- $2 \times 2 = 4$
- $2 \times 3 = 6$
- $2 \times 4 = 8$
- $2 \times 5 = 10$
- $2 \times 6 = 12$



MCP – Higher functions from low level API

fibonacci series starts with 0, 1 and then the next number is the sum of the last two terms. Can you generate a fibonacci series using the calculator. please generate the first 10 terms.

Sure! I'll generate the first 10 terms of the Fibonacci series using the calculator.

The Fibonacci series starts with 0, 1, and each subsequent term is the sum of the previous two terms.

Term 1: 0

Term 2: 1

Add ▾

add

Result

Done

Term 3: 1

Add ▾

add

Result

Done

Term 4: 2

Add ▾

add

Result

Done

i will now define a new operator defined by \wedge . This operator for two terms $a \wedge b$ means multiply a with itself b number of times. use calculator for multiplication. can you tell me what is $2 \wedge 10$.

Sure! I'll calculate $2 \wedge 10$, which means multiplying 2 by itself 10 times ($2 \times 2 \times 2$).

Let me do this step by step using the calculator:

Step 1: 2×2

Multiply >

Step 2: 4×2

Multiply >

Step 3: 8×2

Multiply >

Step 4: 16×2

Multiply >

Step 5: 32×2

Multiply >

Step 6: 64×2

Multiply >

Step 7: 128×2

Multiply >

Step 8: 256×2

Multiply >

Step 9: 512×2

Multiply >

let's create another operator $\%$. $r = a \% b$ means divide a by b and then show the remainder r that is left over. so $\%$ is modulus operator. Can you solve $21 \% 5$ using the calculator?

Sure! I'll solve $21 \% 5$ using the calculator. This means dividing 21 by 5 and finding the remainder.

First, let me divide 21 by 5:

Divide >

The quotient is 4, which means 5 goes into 21 exactly 4 times.

Now I need to find the remainder. If $5 \times 4 = 20$, then the remainder is $21 - 20$.

Multiply >

Now let me subtract to find the remainder:

Subtract >

$21 \% 5 = 1$

The remainder when 21 is divided by 5 is 1.

$2 \wedge 10 = 1024$



Team Skillup

- Weekly workshops
- Small projects
- Access to hardware
- Certification

Future

- Incorporate Gemini + Canvas LMS
- Provide developers with AI enabled hardware
- You still need technical skills
- It helps you do what you want faster
- Before starting a task, check to see if AI can do it for you.
- Think of it as more of you.



AI Impact: Agents to help you



Questions