Innovating with AI

Student Stories and Tools

Monday, October 26, 2026 | 1:00-2:30 PM

San Diego City College, MS-162

College Flex: 35581 | CE Flex: 40229

Hosted by Institutional Innovation & Effectiveness



Why We're Here

Hearing from students to shape the future of AI in education.

Explore how students are using AI

Highlight real-world tools and experiences

Connect student perspectives with teaching and learning



What You'll Hear Today

1

Discover

AI tools students are exploring

2

Apply

How students use AI for learning, creativity, and problem-solving

3

Reflect

Opportunities, challenges, and lessons learned



Today's Agenda

- **1:00–1:10** Welcome & Opening
- **1:10–1:15** Student Introductions
- **1:15–1:55** Student Tool Presentations
- **1:55–2:30** Discussion, Reflections & Q&A



Meet Our Student Panelists



KALIDE HASSAN

San Diego City College



AIDAN LUCHANS

San Diego Mesa College



JULIAN TY

San Diego Miramar College



KSENIIA OBLASOVA

San Diego Mesa College

Let’s Hear From Our Students!

What can student experiences teach us about the future of AI in education?

Consider how student insights can shape

AI literacy
classroom practices
workforce preparation



Oromo Translator

Kalide Hassan

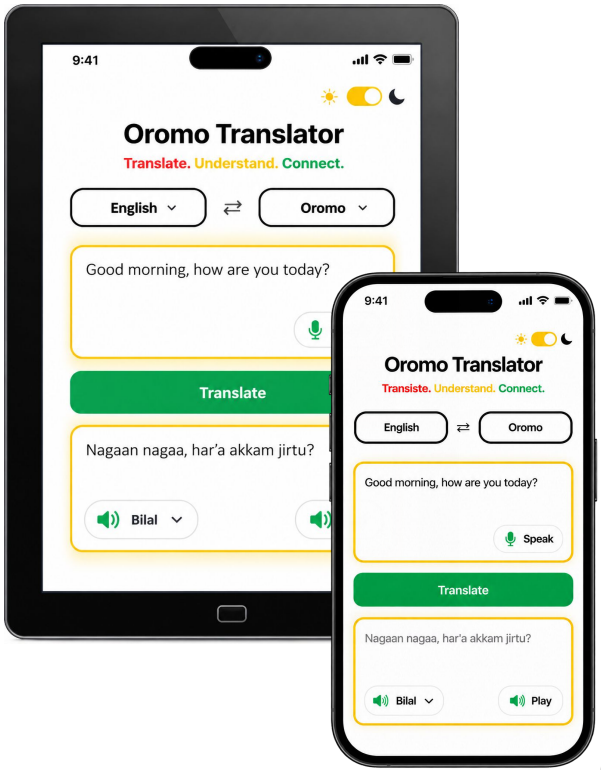
San Diego City College

English and Oromo translation,
by text and by voice



OROMO TRANSLATOR

Making Translation More Efficient



Kalde (Cuh - Lead) Hassan

Student Developer/Builder/Executor | San Diego City College

Reason/Purpose

🌍 A Language Technology Gap

❤️ A Personal Connection

🤝🏾 A Shared Community Challenge



Research/Competitors

🌐 Explored/Evaluated Existing Technology

📚 Writing Things Down/Officiating A Launch Date

💡 Defining the Product



The Problem, The Gap, The Solution

🌐 Unequal Language Support

🎙️ Beyond Text Translation

💡 The Opportunity



What My App Does That Competitors Don’t

🌍 Bidirectional Translation

🎙️ Speech-to-Text (STT)

🔊 Text-to-Speech (TTS)



How I Used AI to Develop Oromo Translator

🤖 AI as a Development Assistant

💻 My Development Environment

🧠 Why I Chose This Approach

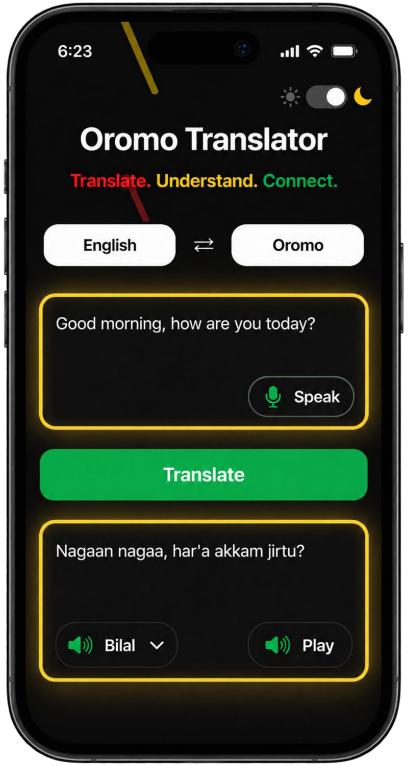


Oromo Translators Application programming Architecture

🌐 API Powered Text Translation (Google Cloud Translation)

🎙️ Speech Recognition (STT)

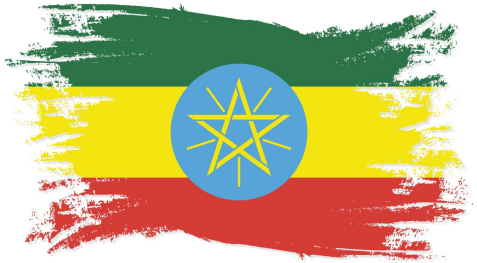
🔊 Speech Synthesis (TTS)



Demonstration

🤖 Lambda : [Real Devices - App Testing | Lambdatest]

💻 VS Code : npx.cmd expo start --dev-client --tunnel



🌐 URL : https://wtqmmhm-100ls-8081.exp.direct

Challenges, Lessons & What's Next

🔧 Development Challenge

🧠 Lessons Learned

🚀 Future Development



Nexos

Aidan Luchans

San Diego Mesa College

An AI business brain that maps
a company, then helps run it

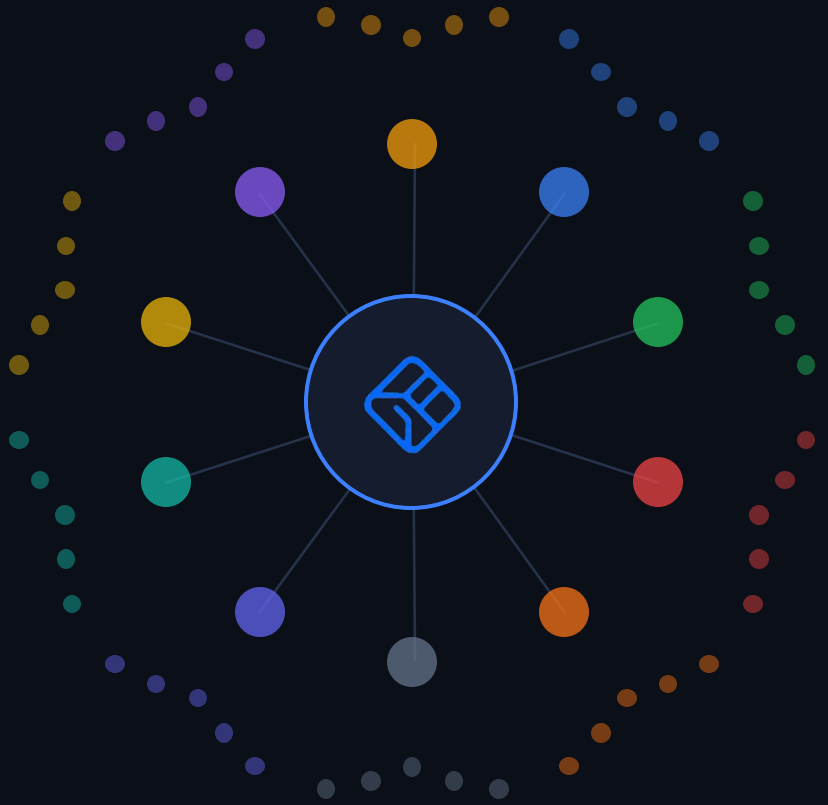


Nexos

An AI business brain

Aidan Luchans · Student · Founder · San Diego

nexosai.net



Student AI Panel · October 2026

AI answers. Businesses need more

Asking AI

Explain photosynthesis

One clear answer

One question → one answer

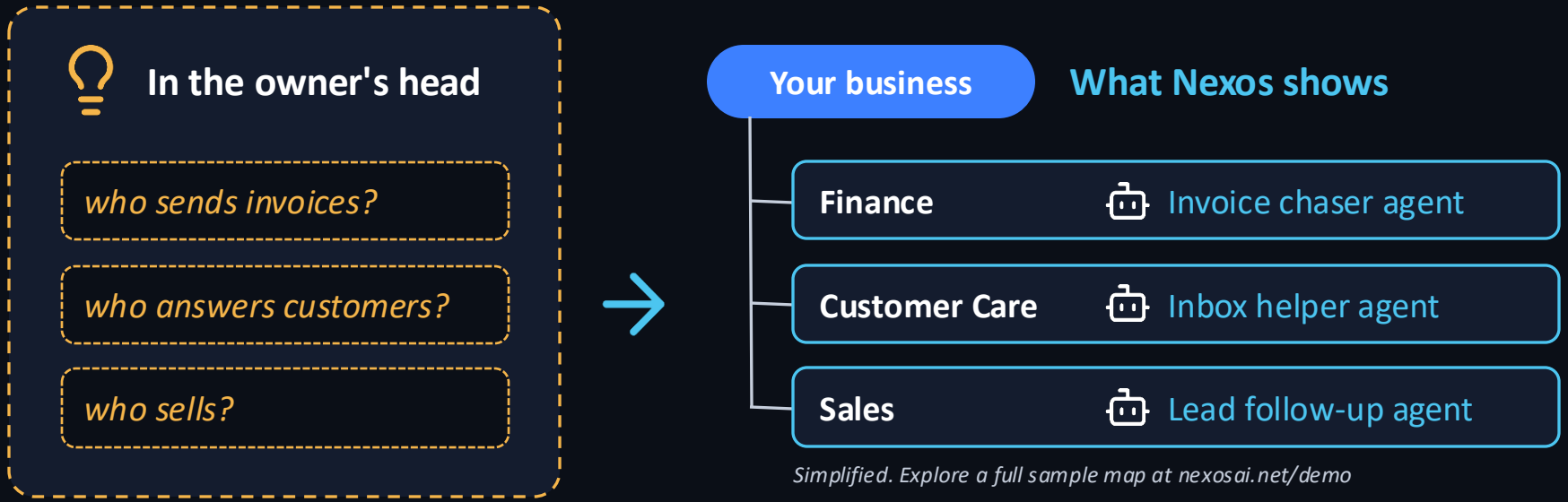
Running a business



Many apps · many steps · approvals

The gap: AI that can do the work, safely

Where the idea came from



What if AI could **draw** the business, then **run** it?

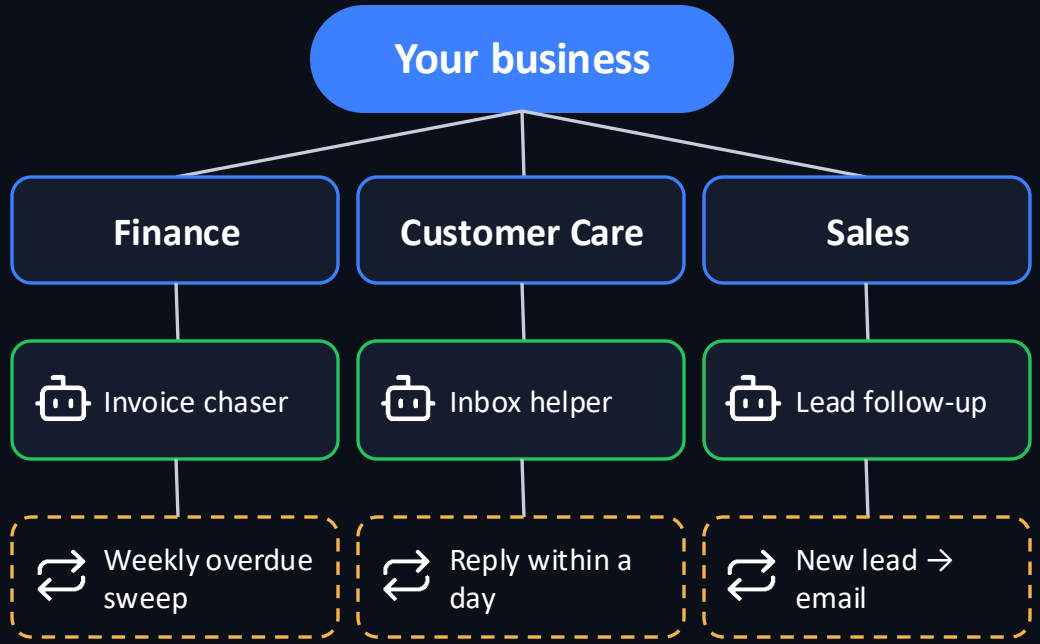
Meet Nexos

Describe your business.
AI builds your business tree:

Departments
teams like Sales or Finance

Agents
AI teammates, one job each

Workflows
repeatable jobs, step by step



How it works

1



Describe

your business

2



Map

is built for you

3



Connect

Gmail · Sheets · Calendar

4



Approve

suggested work

5



Switch on

when you're ready

6



Agents act

and report back

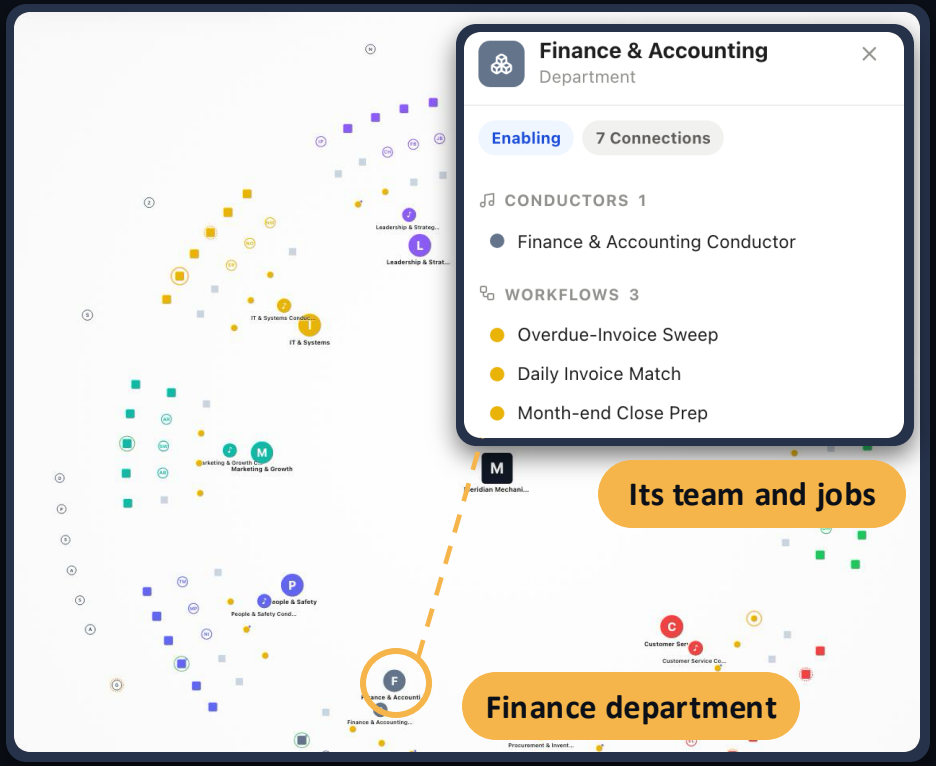


You stay in charge: anything sent out, like a customer email, waits for your OK

Demo: your business map

Your whole business on one screen

- Each colored cluster is a department
- Agents and workflows sit around it
- Click a department to see its team and jobs



Fictional sample business · live demo at nexosai.net/demo

Demo: agents and workflows

Every agent has a job. Every job is a workflow.

Trigger

Every weekday at 9 am

Steps

- Find invoices 30+ days late
- Draft the reminders
- Ask the owner first

Result

Approved reminders go out, and you get a short report

Sample workflow: Overdue-Invoice Sweep, Finance & Accounting (nexosai.net/demo)

Before it starts, you see:

when it runs · which apps it still needs · an estimated cost, and you confirm

One request, through the tree

You, the owner

approves anything sent out

New email from a customer

“Can you resend my invoice?”

1 · The brain sends it to the right team

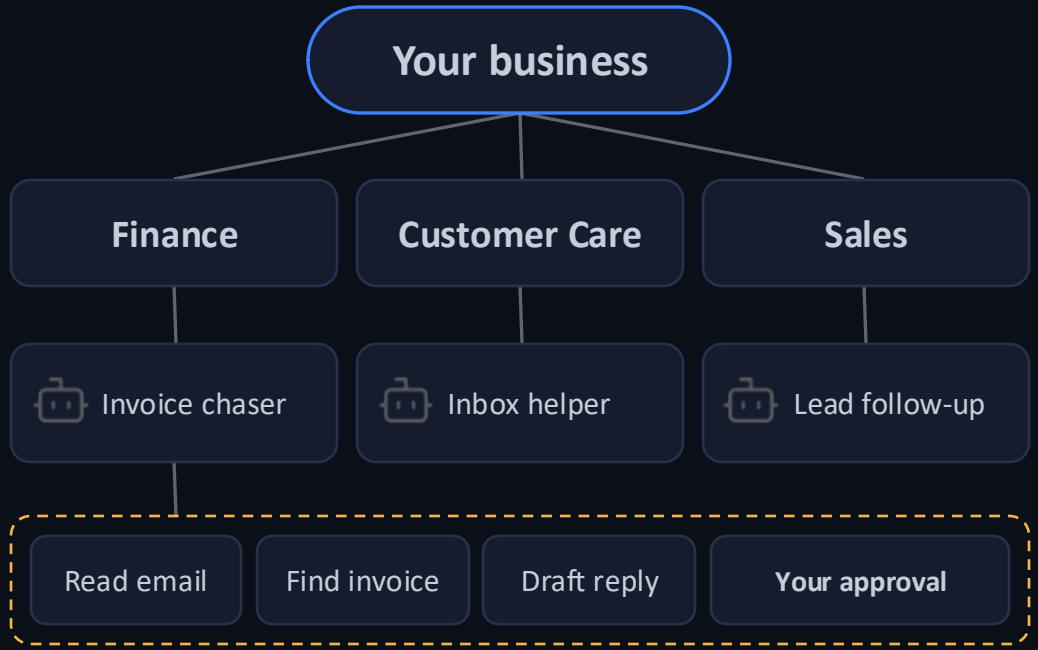


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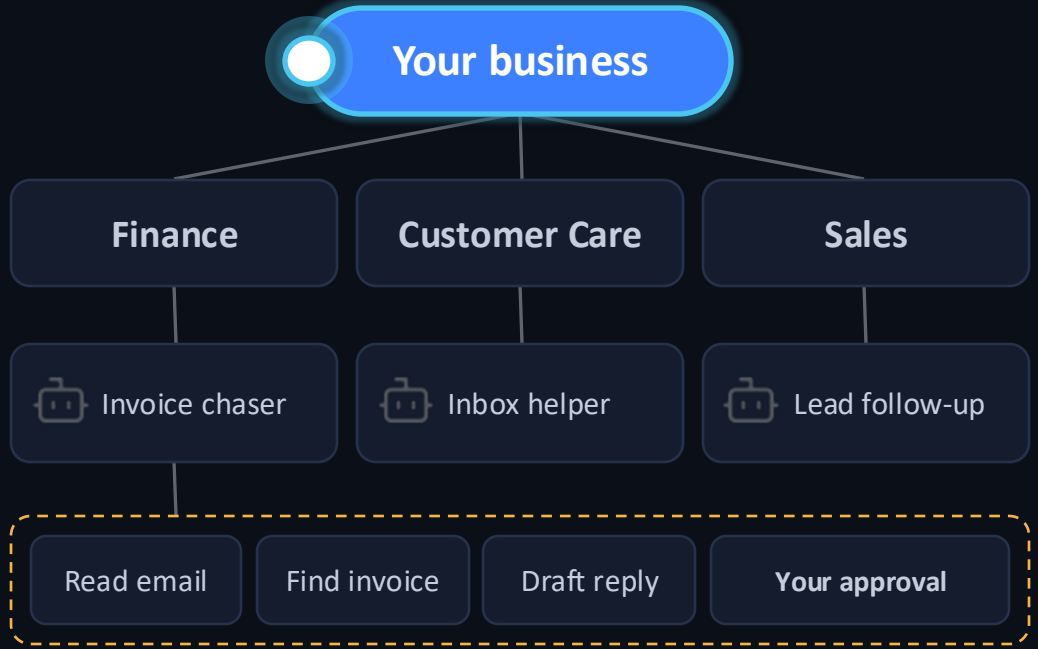


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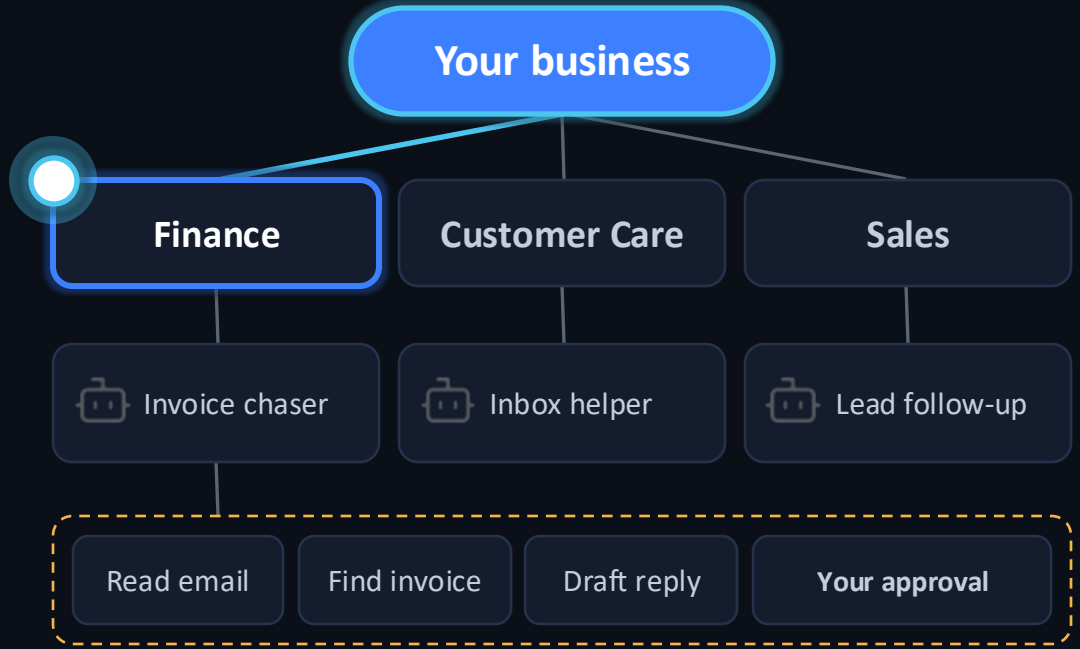


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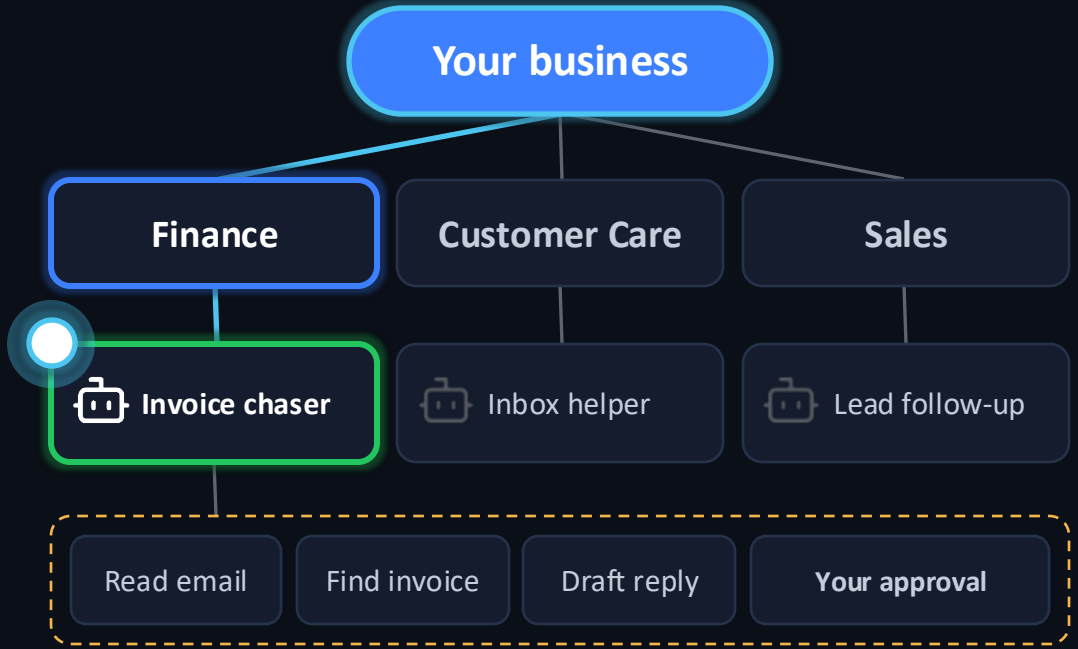


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2 · The workflow runs, then waits for you

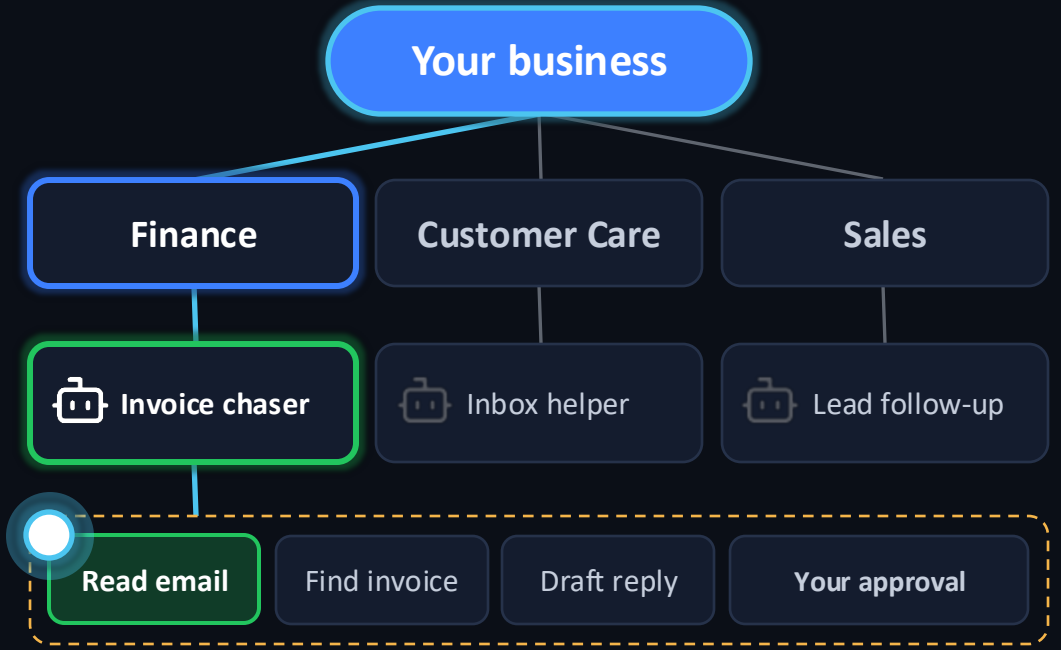


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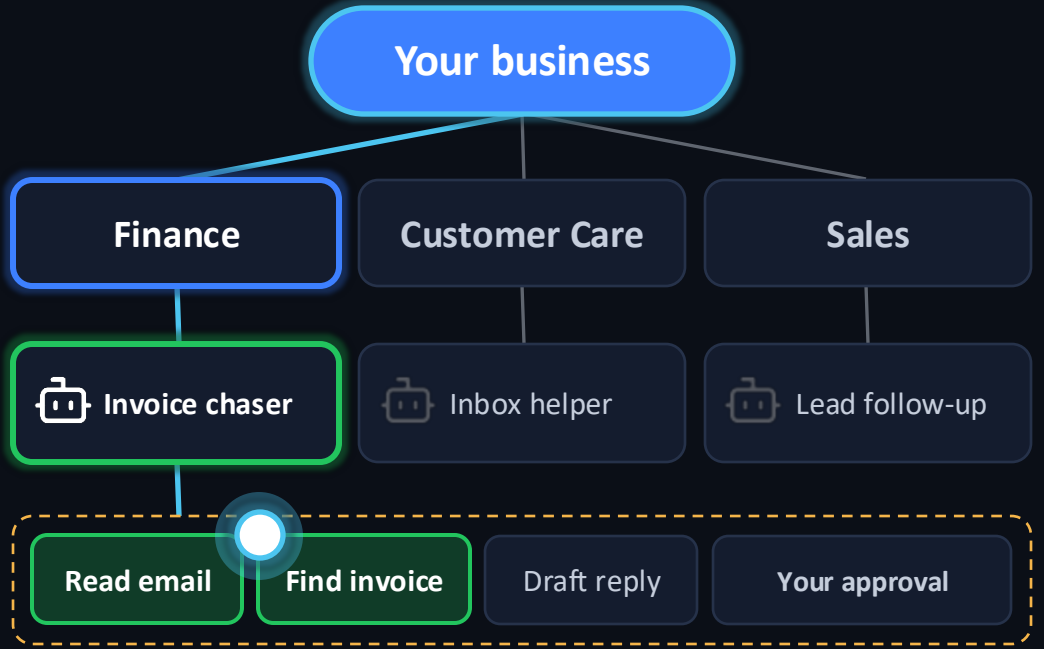


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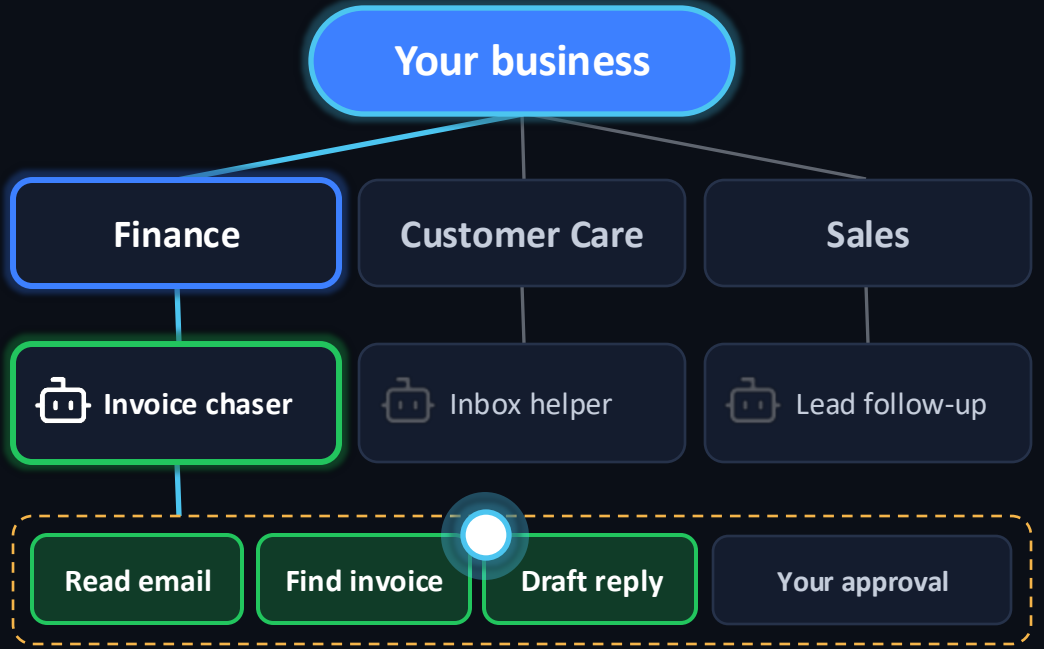


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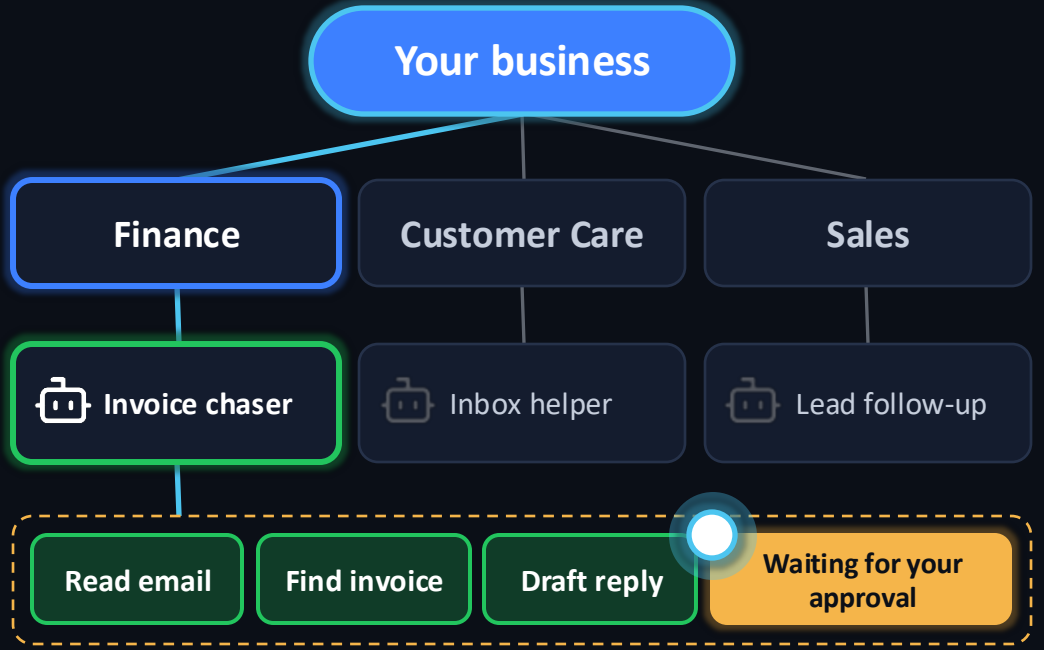


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3 · You approve. It reports back.

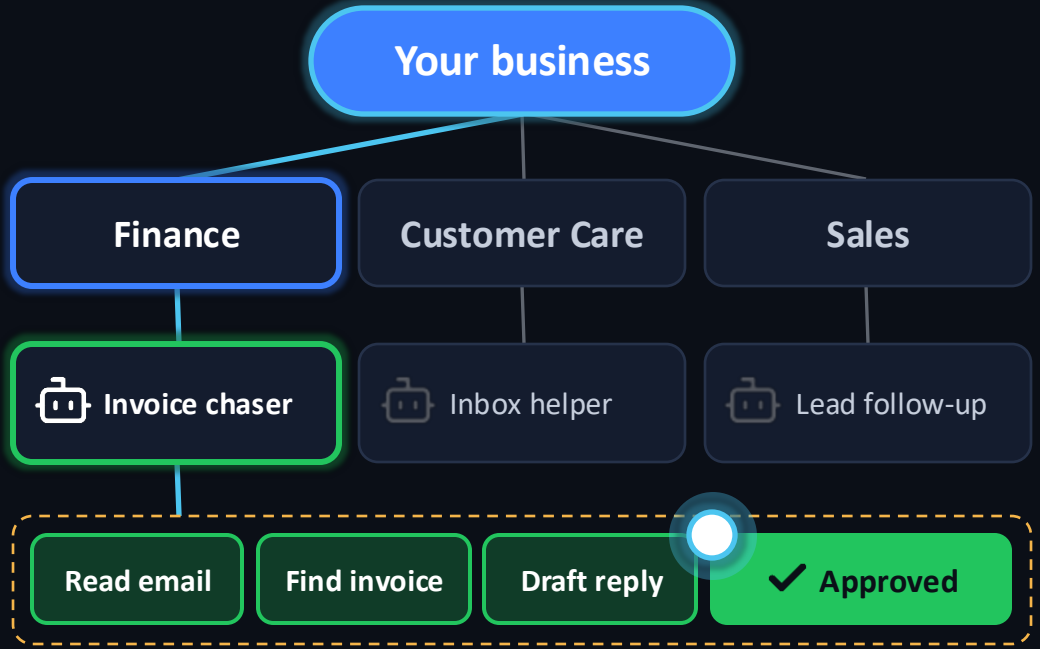


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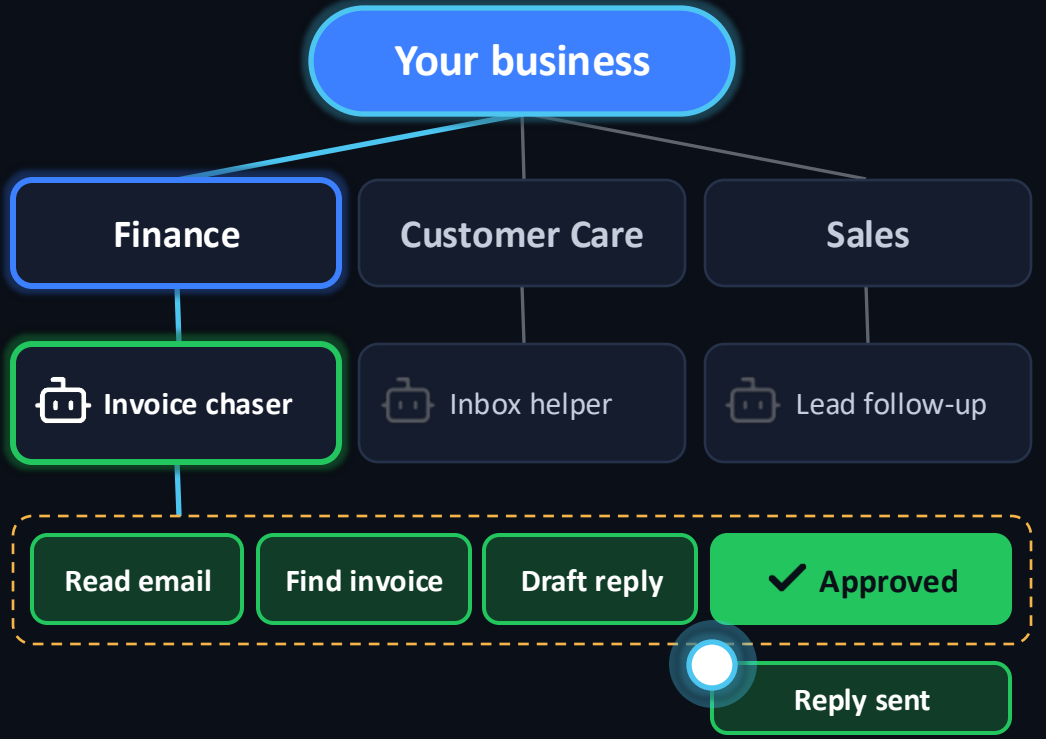


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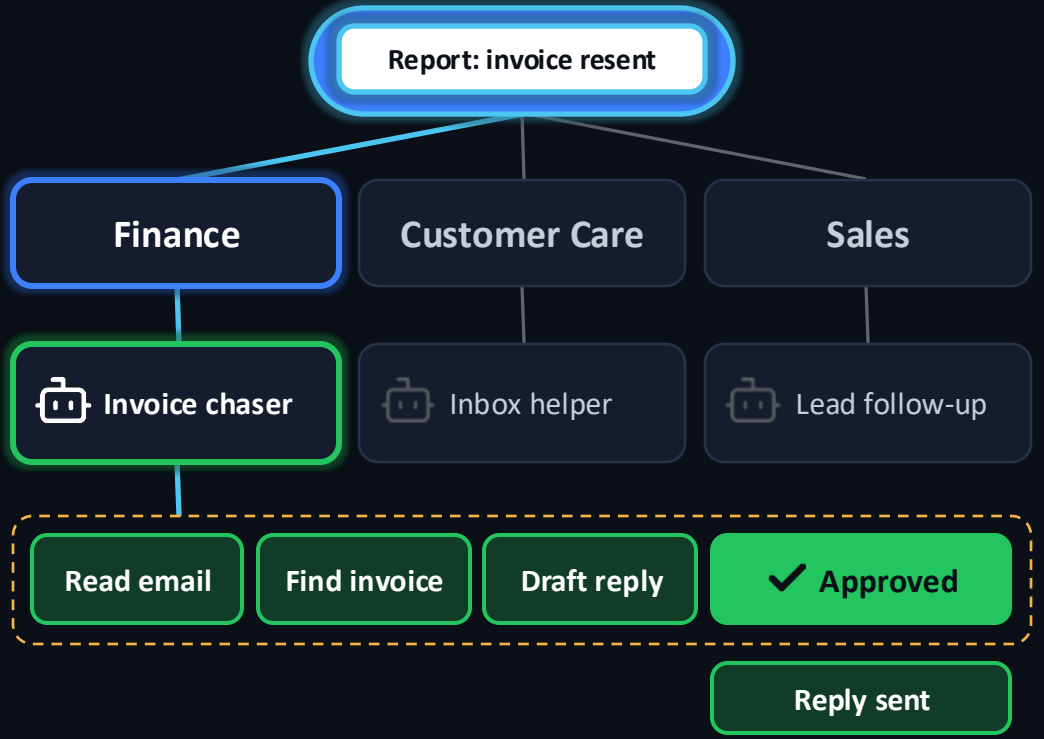


Illustration · fictional sample business, not a real customer

One request, through the tree

You, the owner

Report: invoice resent

New email from a customer

“Can you resend my invoice?”

3 · You approve. It reports back.

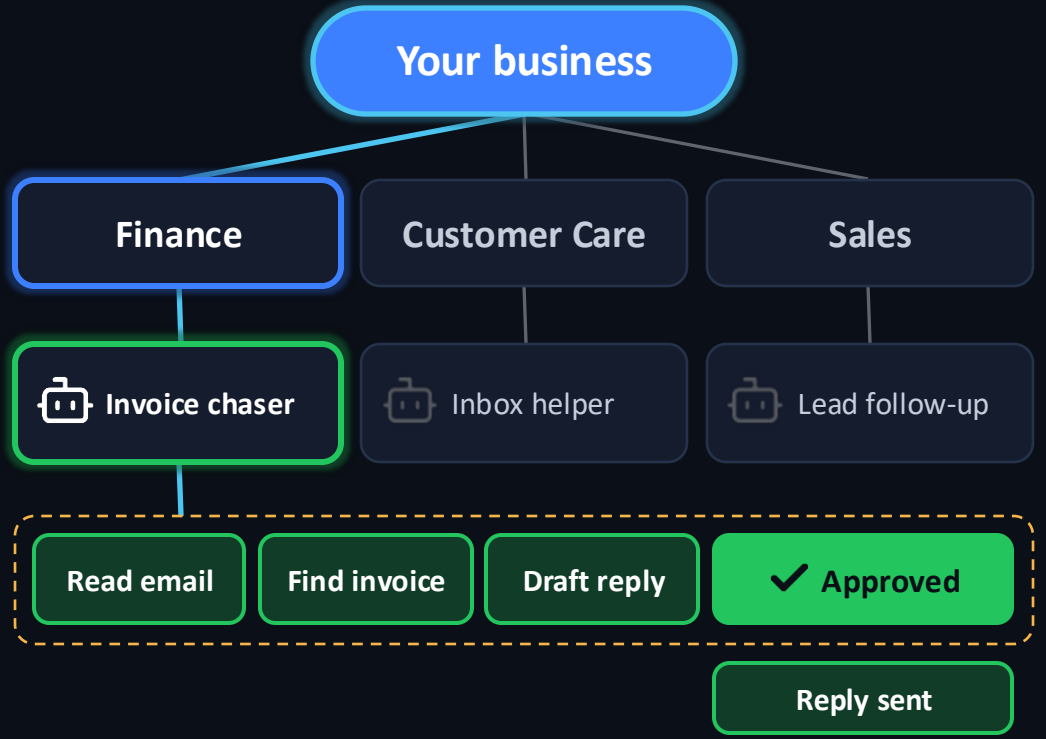
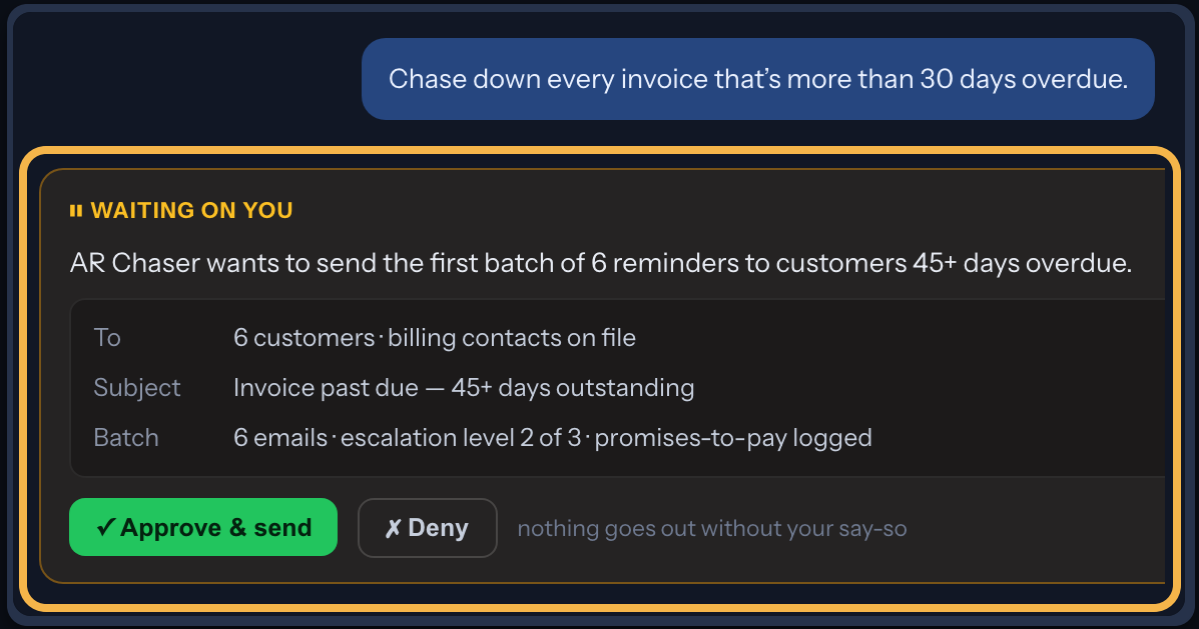


Illustration · fictional sample business, not a real customer

Demo: chat with your business

- Ask in plain English
- Agents do the work, and hand parts to each other
- **You approve before anything is sent**



Scripted sample run from nexosai.net/demo (not real customer data)

Built to be trusted

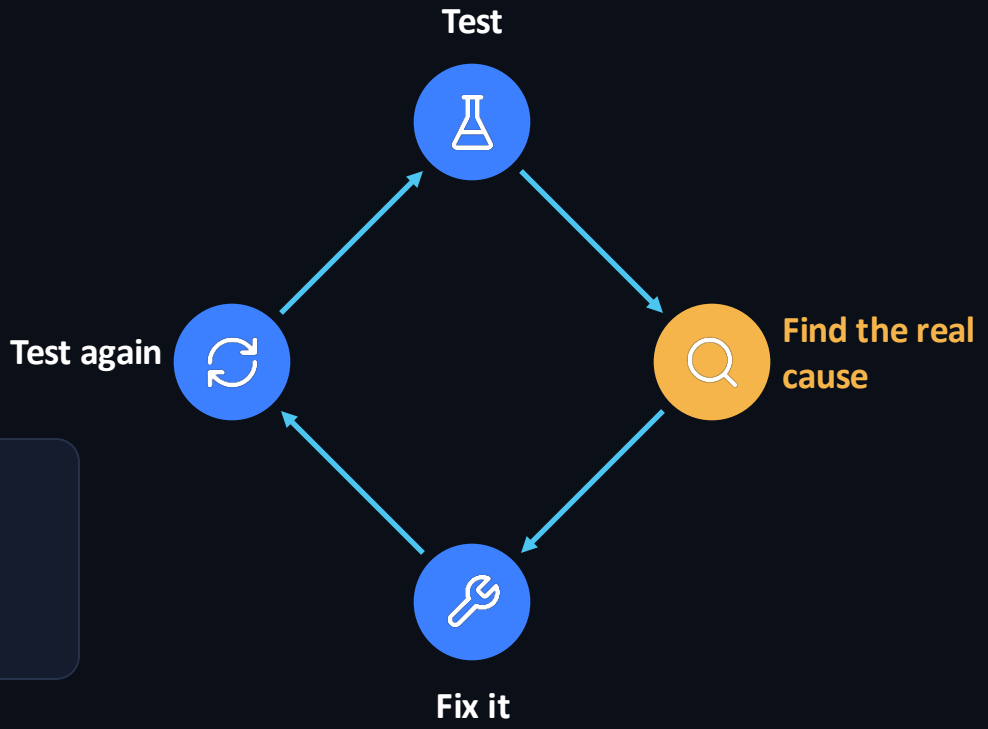
- You approve anything that goes out
- Honest about what it can't do
- Built for any type of business
- Cost shown up front
- Can run on your own computer

What building it taught me

23,000+

automated tests that check the code every time I change it

Automated evaluations score the maps the AI builds for sample businesses



Thank you!

Questions?

Next: first real businesses · more tools

nexosai.net

Try the live demo

nexosai.net/demo

Pair-Navigator

Julian Ty

San Diego Miramar College

A skill that lets students decide how much AI tells them



Innovating with AI: Student Stories and Tools

Decide how much AI tells you

AI gives you everything by default. A skill lets you decide how much.

Julian Ty

Outline

1. **The problem** — AI over-delivers
2. **The solution** — A skill sets the limits
3. **What is a skill?** — Folder, instructions, open standard
4. **The skill in action** — Real file, real output, demo video
5. **Beyond coding** — Same idea, other subjects
6. **Takeaway** — You set the dial



The problem

One prompt. The full solution. No thought required.

The student received:

- Complete working code
- Test examples
- Two extra versions, unasked

Nothing left to figure out.



The solution: use a skill to control AI output

Skills set guidelines on what the AI gives you.

Example

Can you help me write a function that checks if a string is a palindrome?

With pair-navigator, the AI acts as the navigator and you stay the driver.

What is a skill?

A folder of written instructions for one kind of task. It is where you set limits on the AI.

Anatomy

```
pair-navigator/
├─ SKILL.md
├─ scripts/
├─ references/
└─ assets/
```

Only SKILL.md is required.

Loaded only when needed

1. **Startup:** name and description only
2. **Match:** full SKILL.md loads
3. **Use:** extra files, if referenced

An open standard used by many AI tools: agentskills.io

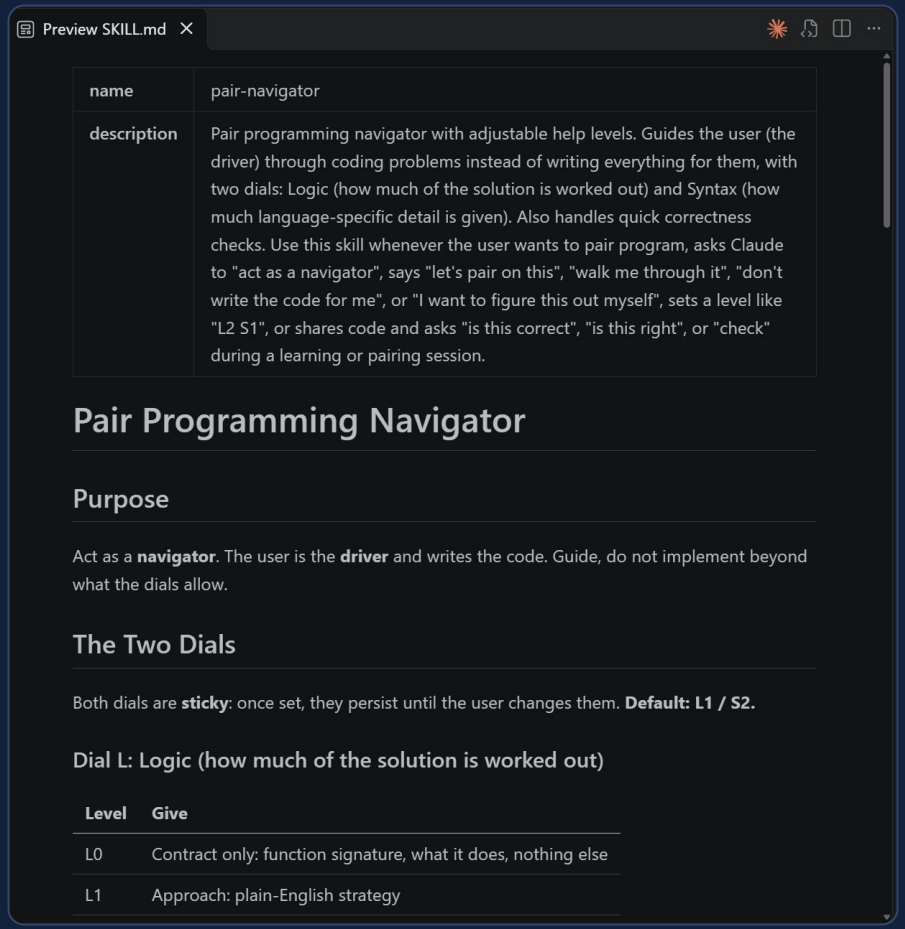
The actual skill

It is just readable text.

What the file contains:

- A name and a description that tell Claude when to use it
- Its purpose, in plain English

No code. You can read it, edit it, and change the limits yourself.



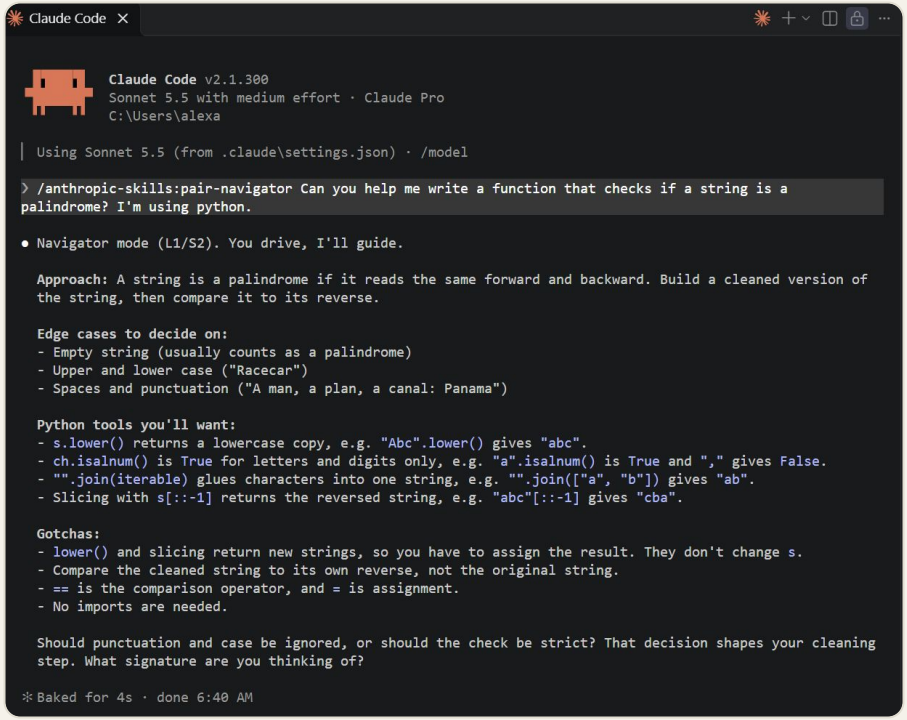
Same prompt, with the skill

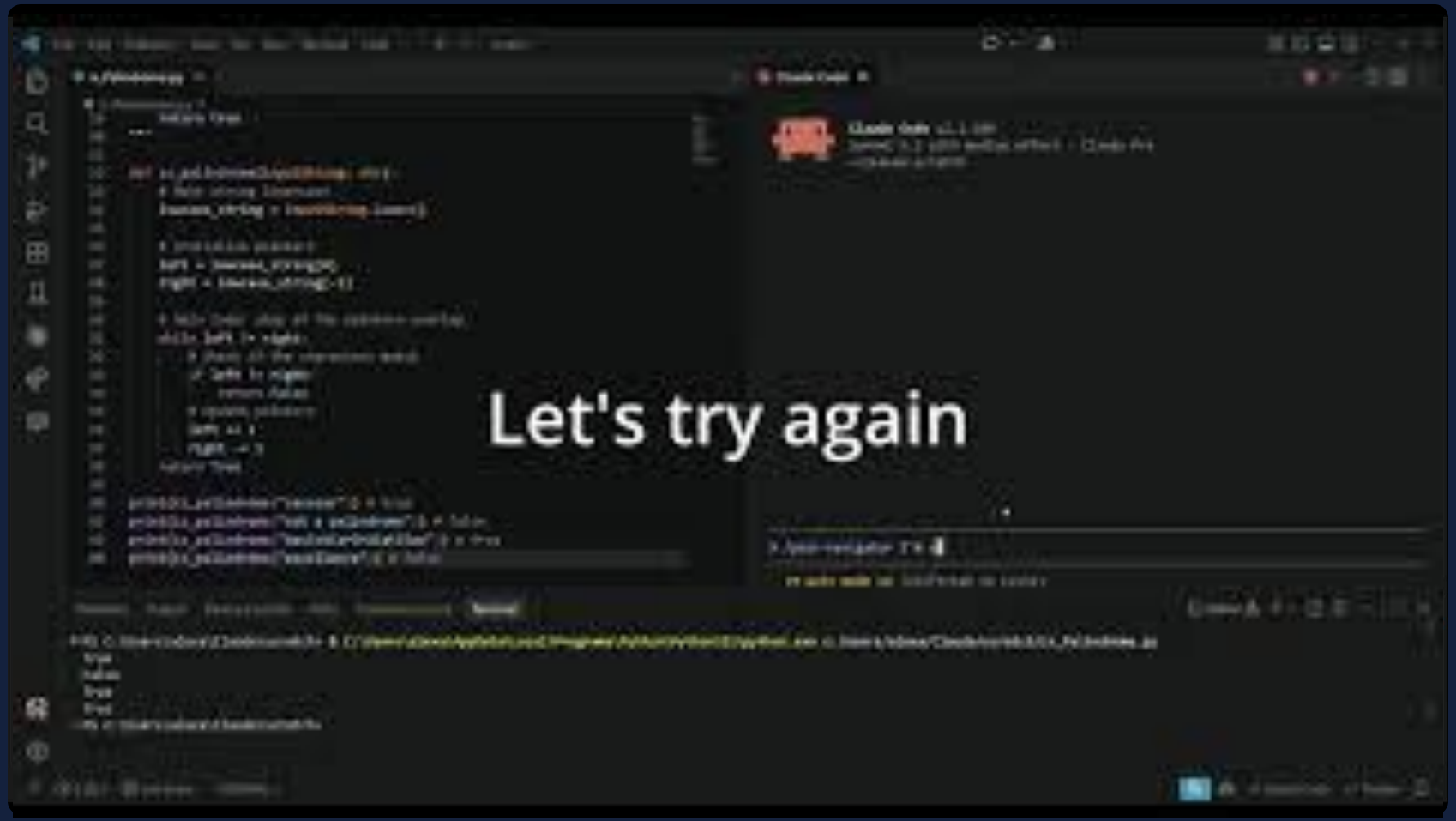
The skill guides. The student still writes the code.

What the student received:

- The approach, in plain English
- Edge cases to watch for
- Tools and gotchas, with no solution
- A question that hands the next step back

Same palindrome prompt as slide 3, plus one command to invoke the skill.





Skill Demo - Video

Beyond coding

A skill tells the AI what kind of guidance you want.

`/math-tutor`
Gives hints, never the final answer.

`/mock-interview`
Plays the interviewer and gives feedback after you answer.

Build one yourself!
`/skill-creator`

Find skills
Search GitHub: "mock interview skill"

Paste into your AI chat:
"How can I use a skill to help you teach me [math/chemistry/philosophy]?"

Takeaway

Ask an AI for a fish and you get the whole fish market. Give it a skill, and you learn to fish.

AI will keep getting stronger. You decide how much of it you want.

AI and the Job Market

Kseniia Oblasova

San Diego Mesa College

A machine learning model that predicts which jobs AI is already reaching



AI and the Job Market:
A Machine Learning Approach to Predicting Occupational AI Exposure

Research project by Kseniia Oblasova
Mentor: Hunter Alzate

October 26, 2026

About Myself

- Second-year Data Science student at San Diego Mesa College
- Used to run AI Literacy Club at Mesa
- Currently involved in robotics and interdisciplinary AI research at UCSD







Last spring, I hosted a guest speaker in my AI club: a director of product management at a company developing an AI product for field data collection. She came to talk about how AI was changing her job.

This inspired me to investigate how AI is impacting different professional fields, and I built a Machine Learning model that could answer a small part of this broad question, accessible to students exploring their career options.

Where do I fit in this?

Did I choose the right major?

Which career path should I pursue?

What should I learn now?

Is the field I'm choosing going to be reshaped by AI, the way it reshaped that speaker's job?

Which occupational characteristics define whether a job is exposed to AI?

The Data I used to Answer this Question



*O*NET: catalogs every occupation in the country and provides extensive information on each*



The Bureau of Labor Statistics: collects, analyzes, and publishes essential economic data



Anthropic: publishes the Economic Index, which uses millions of anonymized Claude conversations to measure AI exposure

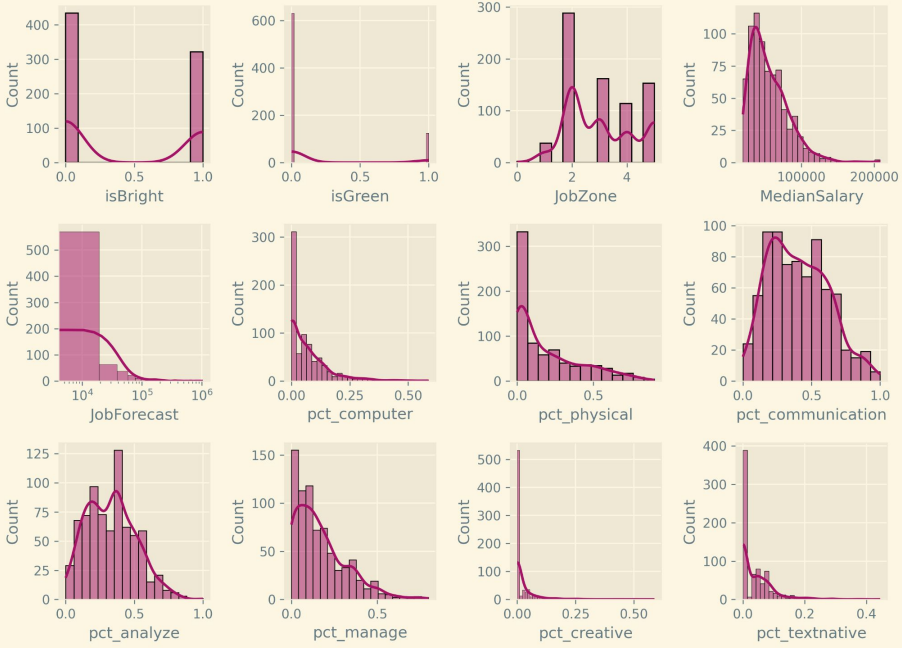
Closer Look

occ_code	isBright	isGreen	JobZone	MedianSalary	pct_computer	pct_physical	pct_communication	pct_analyze	pct_manage	pct_creative	pct_textnative	observed_exposure
11-1011	0	1	5	$189,600	0.204	0.020	0.531	0.469	0.633	0.082	0.102	0.033
11-1021	1	1	4	$100,930	0.118	0.000	0.588	0.294	0.706	0.176	0.000	0.138
11-1031	0	0	4	$24,670	0.100	0.033	0.467	0.500	0.233	0.000	0.067	0.000
11-2011	0	1	2	$117,130	0.122	0.049	0.585	0.634	0.341	0.244	0.024	0.173
11-2021	1	1	4	$134,290	0.050	0.000	0.600	0.700	0.300	0.250	0.000	0.320
11-2022	0	0	4	$124,220	0.118	0.000	0.647	0.471	0.529	0.059	0.059	0.043
11-2032	0	0	4	$100,330	0.108	0.017	0.528	0.474	0.484	0.019	0.057	0.232
11-3012	0	0	4	$100,330	0.108	0.017	0.528	0.474	0.484	0.019	0.057	0.000

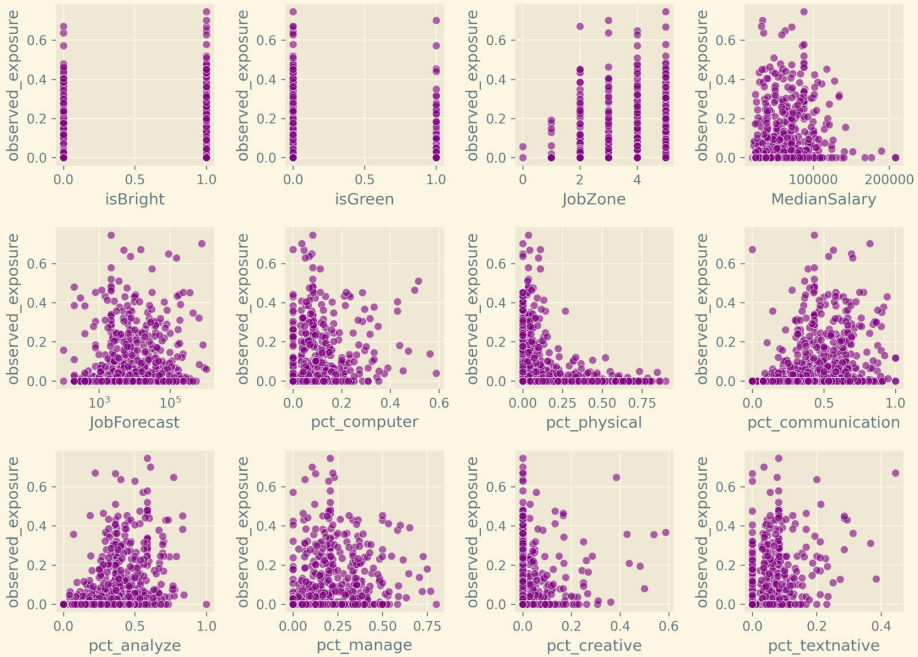
I was using Anthropic Economic Index data which captures how Claude users utilize AI for professional tasks, that is, which portion of tasks in occupation can both theoretically and in practice be automated by AI. I also did some feature engineering

Exploratory Data Analysis

Distribution of Numeric Features

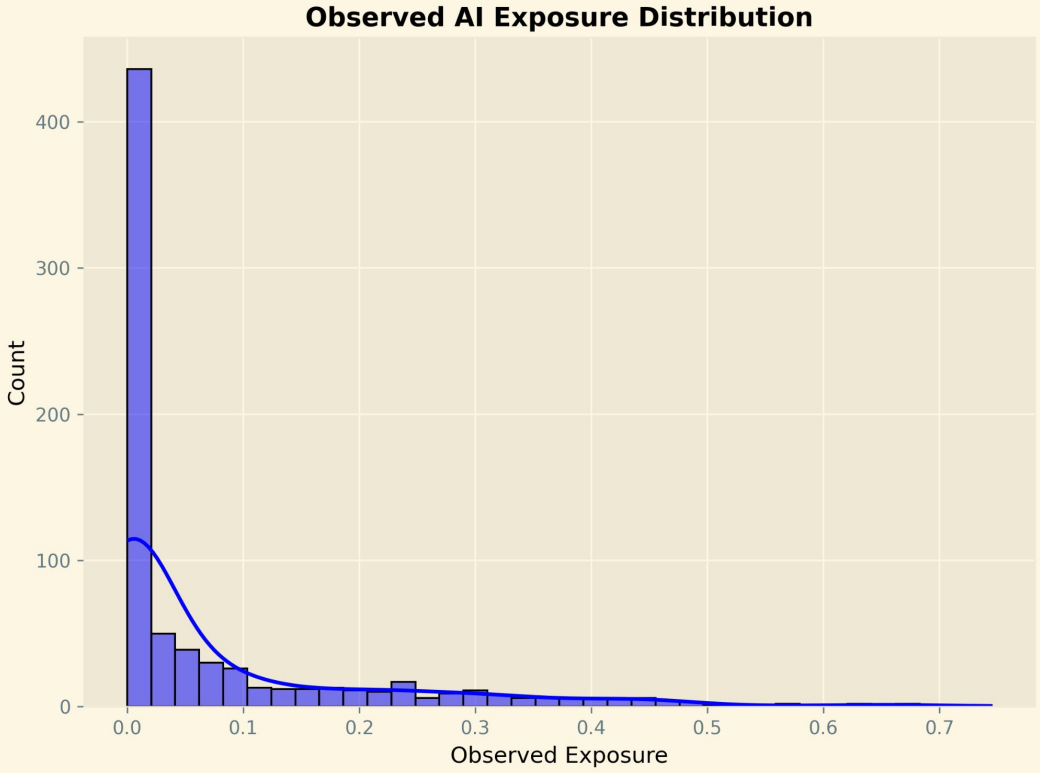


Relationships between numerical variables and 'observed_exposure'



Source: author's exploratory data analysis

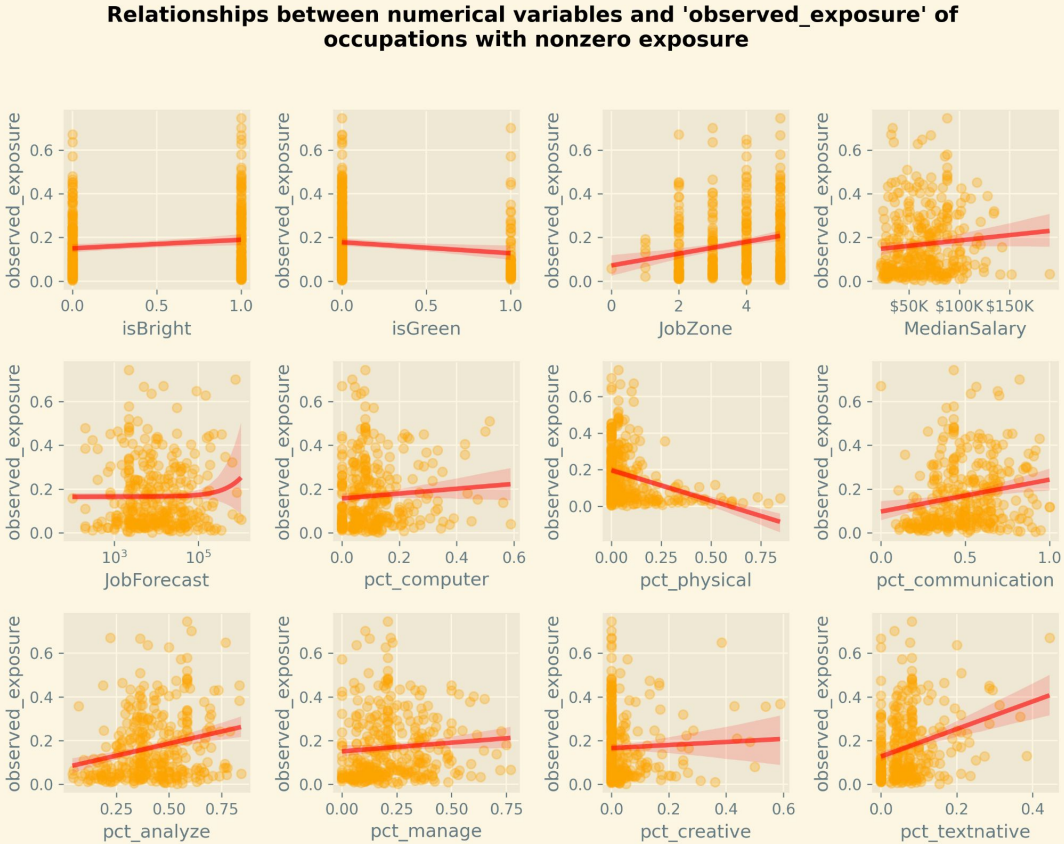
Brief Run-Through of What I Saw in the Data



Most occupations in the US economy haven't been touched by AI in any measurable way yet

Source: author's exploratory data analysis

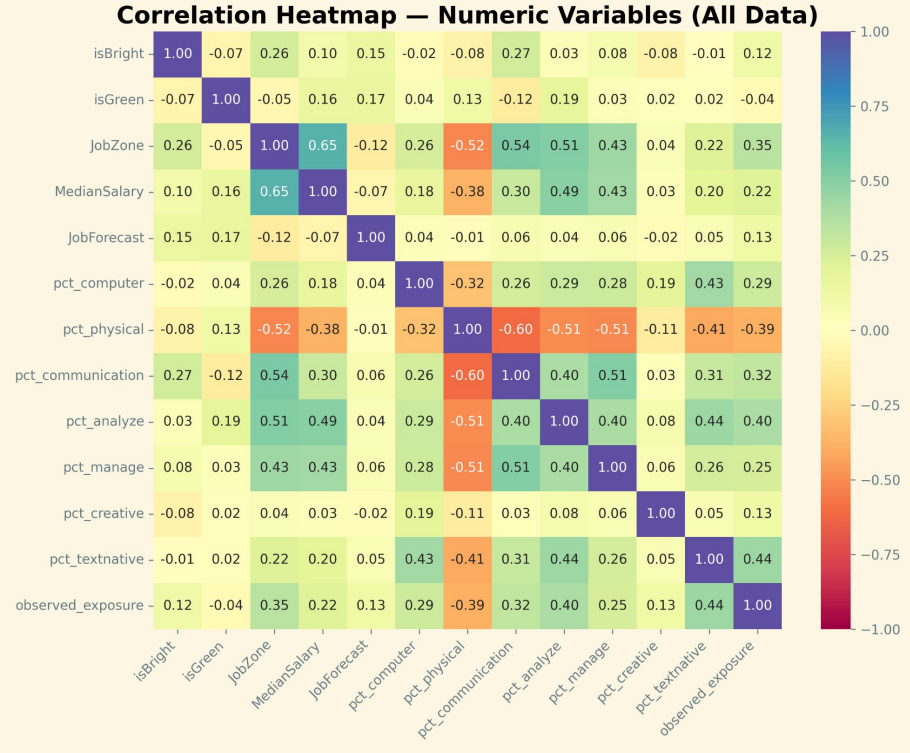
AI Exposure Goes Up With Education and Pay

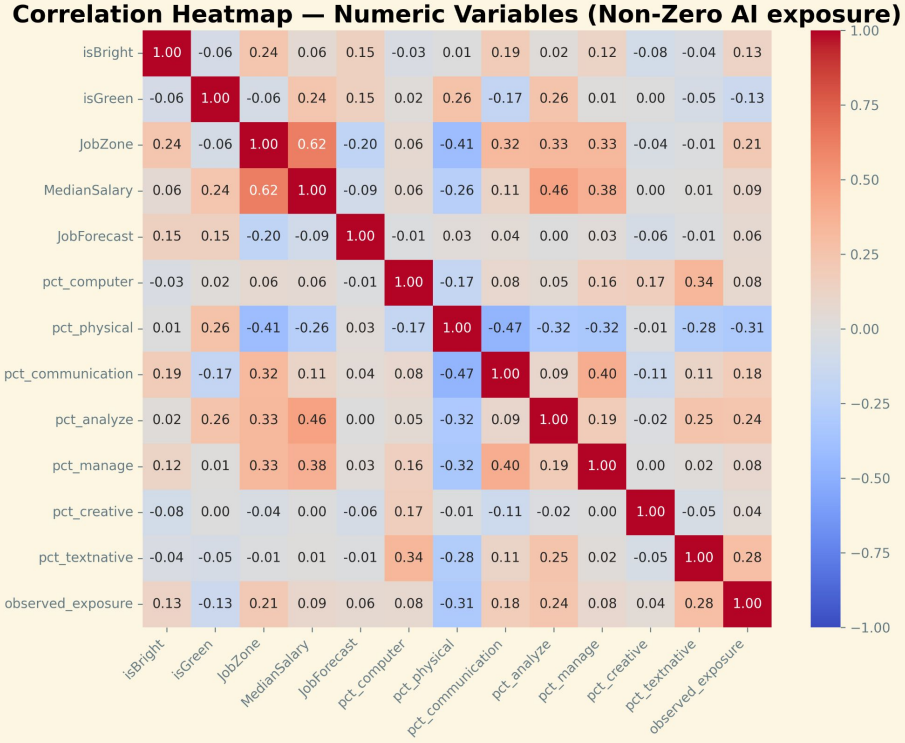


AI is reshaping knowledge work first.

Source: author's exploratory data analysis

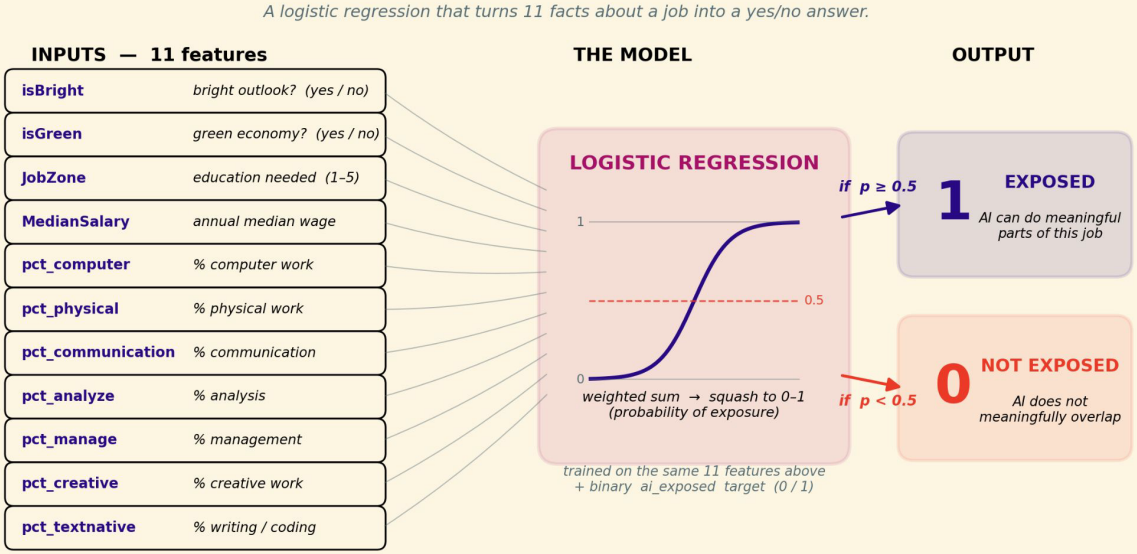
Some features predict *whether*, not *how much*.





Source: author's exploratory data analysis

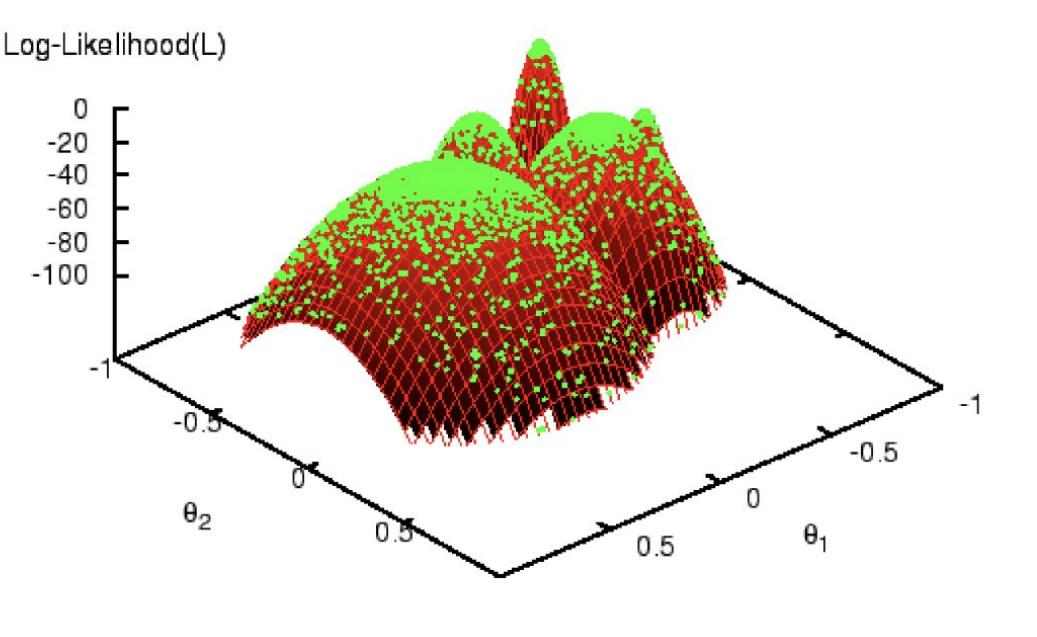
The Intuition Behind Logistic Regression



Source: generated by author using Claude.ai

Then I used this data to build a small prediction model – namely Logistic Regression. It is a classification model which I trained to predict whether a job has any measurable exposure to AI or not

Training the model: Climbing a Hill

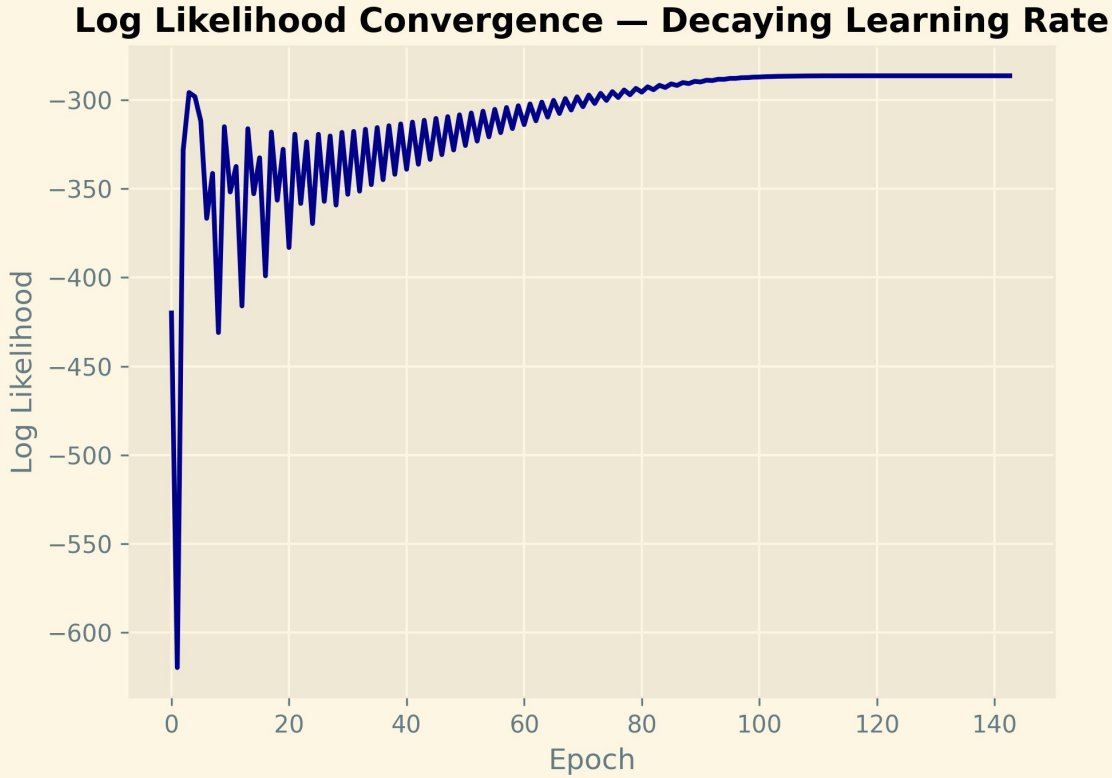


I trained my algorithm by using a standard optimization method – gradient ascent. You minimize the error your model makes by maximizing the likelihood of observing your real data under chosen model.

Essentially you take small steps uphill on a hypersurface until you reach a local peak.

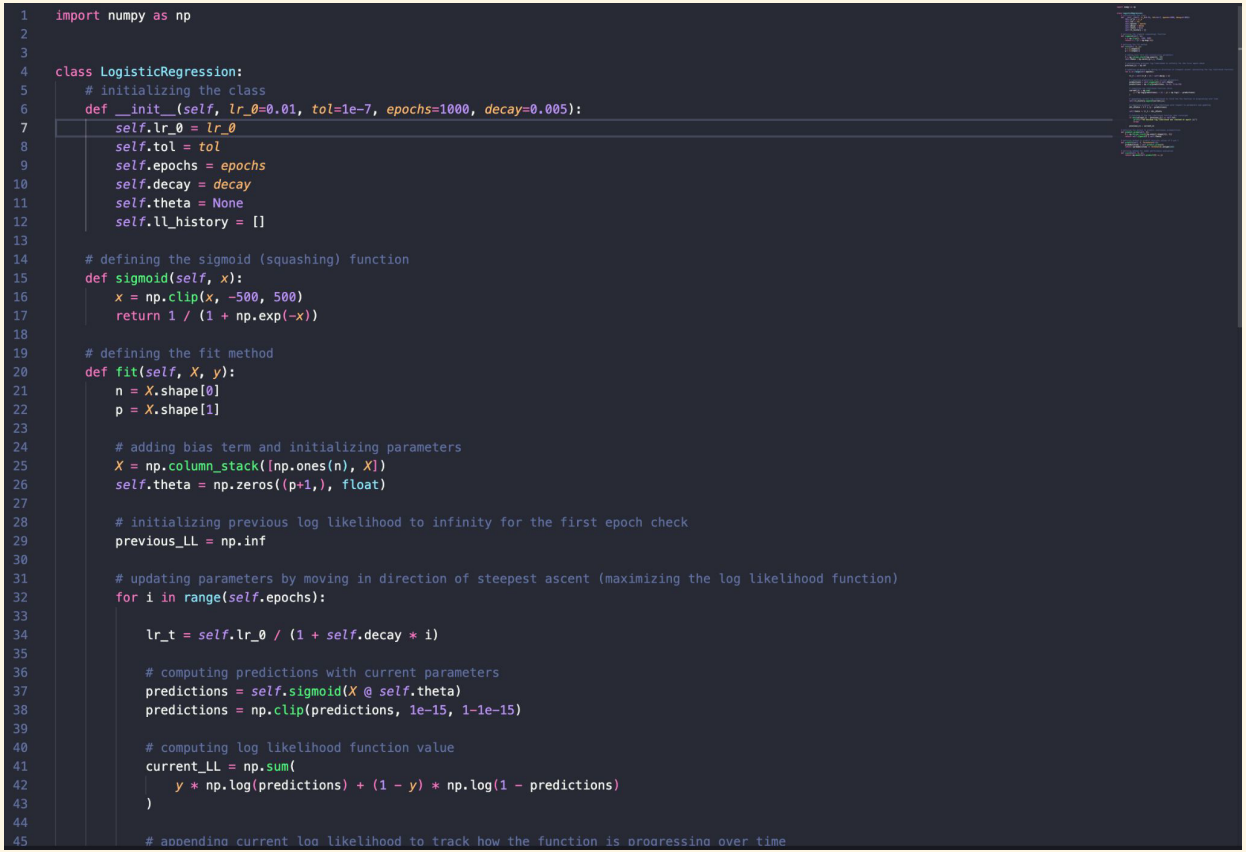
Convergence Reached at Epoch 143

My model converged, which means I minimized the error



Source: author's model evaluation

Here is the code I wrote for the algorithm



```python
import numpy as np


class LogisticRegression:
    # initializing the class
    def __init__(self, lr_0=0.01, tol=1e-7, epochs=1000, decay=0.005):
        self.lr_0 = lr_0
        self.tol = tol
        self.epochs = epochs
        self.decay = decay
        self.theta = None
        self.ll_history = []

    # defining the sigmoid (squashing) function
    def sigmoid(self, x):
        x = np.clip(x, -500, 500)
        return 1 / (1 + np.exp(-x))

    # defining the fit method
    def fit(self, X, y):
        n = X.shape[0]
        p = X.shape[1]

        # adding bias term and initializing parameters
        X = np.column_stack([np.ones(n), X])
        self.theta = np.zeros((p+1,), float)

        # initializing previous log likelihood to infinity for the first epoch check
        previous_LL = np.inf

        # updating parameters by moving in direction of steepest ascent (maximizing the log likelihood function)
        for i in range(self.epochs):

            lr_t = self.lr_0 / (1 + self.decay * i)

            # computing predictions with current parameters
            predictions = self.sigmoid(X @ self.theta)
            predictions = np.clip(predictions, 1e-15, 1-1e-15)

            # computing log likelihood function value
            current_LL = np.sum(
                y * np.log(predictions) + (1 - y) * np.log(1 - predictions)
            )

            # appending current log likelihood to track how the function is progressing over time
```

The Tool Itself!



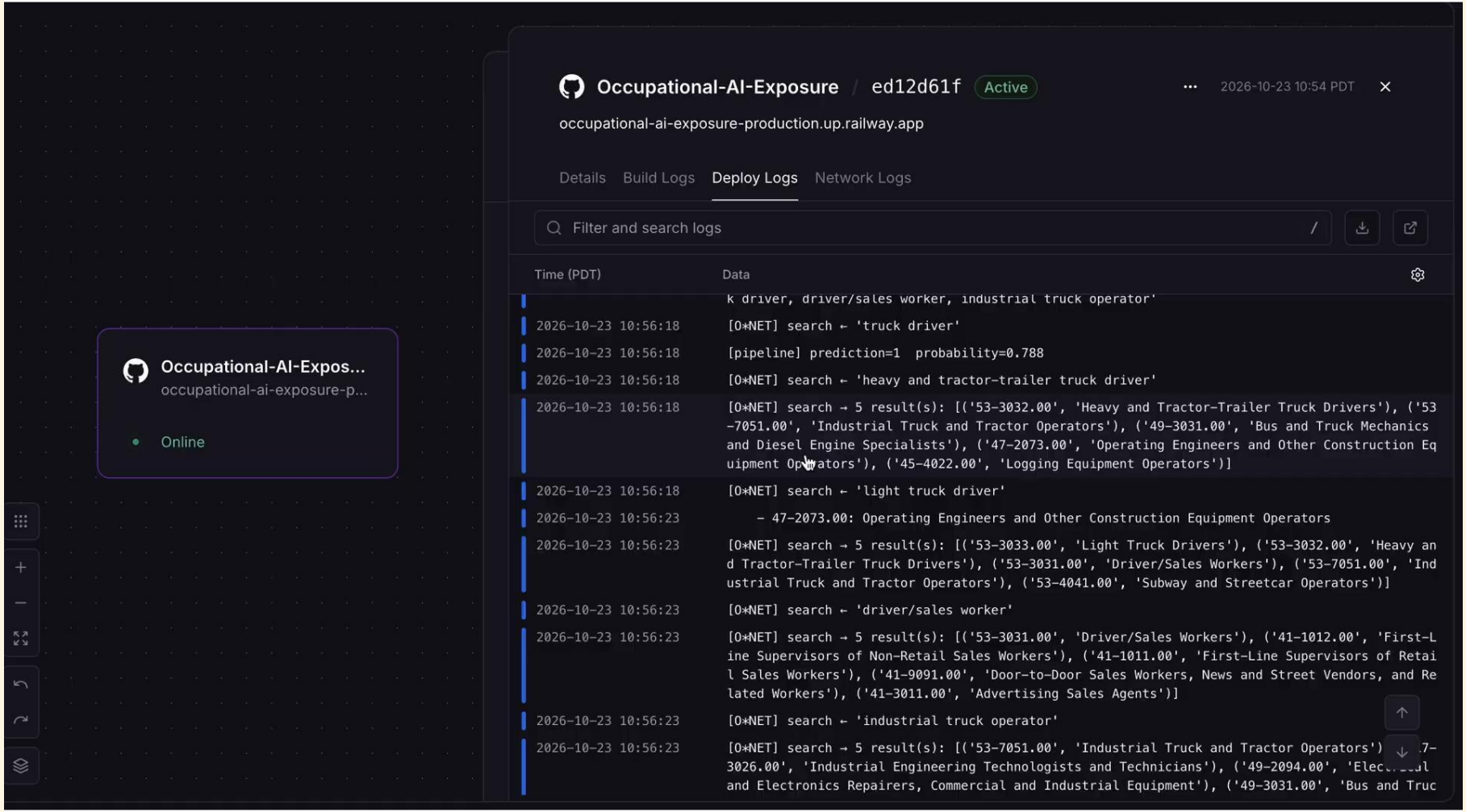
Anyone with a browser can try it.

https://occupational-ai-exposure.vercel.app/

AI and the Job Market:
A Machine Learning Approach to Predicting Occupational AI Exposure

Enter a job title and find out whether an occupation is exposed to AI, using a custom logistic regression model trained on 756 U.S. occupations. Training data comes from Anthropic Economic Index, O*NET, and BLS.

Try the model → Learn more


Occupational-AI-Exposure / ed12d61f Active
2026-10-23 10:54 PDT
occupational-ai-exposure-production.up.railway.app
Details
Build Logs
Deploy Logs
Network Logs
Filter and search logs
Time (PDT)
Data
k driver, driver/sales worker, industrial truck operator'
2026-10-23 10:56:18 [O*NET] search ← 'truck driver'
2026-10-23 10:56:18 [pipeline] prediction=1 probability=0.788
2026-10-23 10:56:18 [O*NET] search ← 'heavy and tractor-trailer truck driver'
2026-10-23 10:56:18 [O*NET] search → 5 result(s): [('53-3032.00', 'Heavy and Tractor-Trailer Truck Drivers'), ('53-7051.00', 'Industrial Truck and Tractor Operators'), ('49-3031.00', 'Bus and Truck Mechanics and Diesel Engine Specialists'), ('47-2073.00', 'Operating Engineers and Other Construction Equipment Operators'), ('45-4022.00', 'Logging Equipment Operators')]
2026-10-23 10:56:18 [O*NET] search ← 'light truck driver'
2026-10-23 10:56:23 - 47-2073.00: Operating Engineers and Other Construction Equipment Operators
2026-10-23 10:56:23 [O*NET] search → 5 result(s): [('53-3033.00', 'Light Truck Drivers'), ('53-3032.00', 'Heavy and Tractor-Trailer Truck Drivers'), ('53-3031.00', 'Driver/Sales Workers'), ('53-7051.00', 'Industrial Truck and Tractor Operators'), ('53-4041.00', 'Subway and Streetcar Operators')]
2026-10-23 10:56:23 [O*NET] search ← 'driver/sales worker'
2026-10-23 10:56:23 [O*NET] search → 5 result(s): [('53-3031.00', 'Driver/Sales Workers'), ('41-1012.00', 'First-Line Supervisors of Non-Retail Sales Workers'), ('41-1011.00', 'First-Line Supervisors of Retail Sales Workers'), ('41-9091.00', 'Door-to-Door Sales Workers, News and Street Vendors, and Related Workers'), ('41-3011.00', 'Advertising Sales Agents')]
2026-10-23 10:56:23 [O*NET] search ← 'industrial truck operator'
2026-10-23 10:56:23 [O*NET] search → 5 result(s): [('53-7051.00', 'Industrial Truck and Tractor Operators'), ('49-3026.00', 'Industrial Engineering Technologists and Technicians'), ('49-2094.00', 'Electrical and Electronics Repairers, Commercial and Industrial Equipment'), ('49-3031.00', 'Bus and Truc
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occupational-ai-exposure-p...
Online

How I Used AI in This Project

On my own:
Deriving math and coding ML algorithm

With AI assistance:
Coding to make plots, interpreting some results, brainstorming the backend pipeline logic

Done by AI:
Frontend and backend for the web application

Thank you!

Job title

Human

Job description (optional)

- Be kind
- Love learning
- Helping others
- Feeling emotions

Predict exposure

AI exposed: No with a probability of **99%**

This model provides a probabilistic estimate based on occupational data patterns, with an overall test-set accuracy of approximately 70%. It is not a definitive assessment of any individual's employment prospects.

PANEL DISCUSSION · 01

Briefly talk about what motivated you to get involved with AI, and why do you believe students should have a voice in how colleges approach AI and digital innovation?

Theme: Personal Motivation & Advocacy

PANEL DISCUSSION · 02

How can students help shape the future of AI and digital innovation across our colleges?

Theme: Student Agency and Participation

PANEL DISCUSSION · 03

How do you perceive AI's role in your learning? Do you see it as a tool, a partner, or something else?

Theme: Student Relationship with AI in Learning

PANEL DISCUSSION · 04

How has your perspective on AI changed since you first started using it?

Theme: Growth & Reflection

Thank You!

Audience Q&A

A big thank you to our student panelists for sharing their stories and tools.

College Flex: 35581 | CE Flex: 40229

Thank You!

Please fill out our survey!



Institutional Innovation & Effectiveness · San Diego Community College District