# David Andrews

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Actively seeking a Summer 2024 internship in AI development to leverage a strong background in generative AI; eager to contribute innovative problem-solving skills and deep understanding of programming to drive advancements in AI and gain hands-on experience.

#### **EDUCATION**

Georgia Institute of Technology, Atlanta, GA: B.S. in Computer Science

Aug. 2023 - May 2026

 $\mathbf{GPA}$ : TBD

Coursework: Honors Linear Algebra with Abstract Vector Spaces, Introduction to Object Oriented Programming

Governor Livingston High School, Berkeley Heights, NJ: AP Capstone Diploma

Sept. 2019 – June 2023

**GPA**: 4.76/5.0

**16 APs**: 13 scores of 5, 3 scores of 4

#### Work Experience

## **DuckAI**: AI Researcher and Programmer

Aug. 2023 – Present

Collecting high quality data to create the future of Multimodal Generalist Computer Agents.

- Wrote ComputerTracker desktop application in **Python** for precise computer action collection and playback.
- Upgraded text bounding box extraction with Azure 4.0 Image Analysis API for higher quality dataset collection.
- Improved quality and efficiency of data annotation through optimized Google Colab Notebook interface.

### Rialtic: Junior Machine Learning Researcher

June 2022 – Aug. 2023

Developed generative AI to produce realistic yet fictional medical records, thus avoiding privacy issues.

• Developed and trained GPT-2 style transformer model with HuggingFace Transformers, PyTorch, and Python to generate fictional medical claim histories from real data. Used AWS EC2 for GPU compute.

# **T20 Prep Academy**: Python and Java Teacher

June 2023 – Aug. 2023

Passed programming knowledge on to those younger than me

• Taught middle and high school students Java and Python programming 6 hrs/week.

# Springfield Senior Housing Inc.: Volunteer Lead Backend Programmer

June 2022 – Sept. 2022

Helped local community by modernizing electronic records for tenant and visitor logging.

• Created a robust **Python** backend system.

#### Office of Dr. Ann Jin Qiu, MD: Automation Technician

Aug. 2020 – Sept. 2020

Automated her retirement notifications to thousands of patients, eliminating hundreds of hours manual labour.

• Wrote mass-notification system in Go utilizing Twilio for phone calls and texts and AWS SES for emails.

#### **PROJECTS**

#### Jarvis

Aug. 2023

• Augmented **GPT-4**'s performance in computation-heavy tasks by giving it stateful **Python Jupyter Notebook**, large compute resources, and internet. Implemented **multilingual speech conversation** through **OpenAI Whisper**, **voice activation detection model**, and **Google TTS**.

#### Causal Transformer

July 2023

• Wrote causal transformer using **PyTorch** and **Python**. Trained and evaluated on works of Shakespeare. Displayed typical transformer scaling laws.

## Hardware Minesweeper

July 2021 – Aug. 2021

• Built first playable clone of original Microsoft Minesweeper out of logic gates in 3D circuit simulator.

#### 8-bit Programmable Computer

Dec. 2018 – June 2019

• Developed fully programmable 8-bit computer using only **logic gates** in 3D circuit simulator. Can calculate Fibonacci sequence and output to **BCD display**.

# SKILLS & INTERESTS

Languages: Python (Highly Proficient), Rust (Proficient), Go (Proficient), Java (Intermediate)

Tools: Git, SSH, Linux, Docker, AWS, VS Code, Android Studio, HuggingFace Transformers, PyTorch, GPT-4

Interests: AI, Deep Learning, Programming Language & Compilers, Digital Logic, BJJ, Piano, Ping Pong, Minecraft

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