Anthony Zhai

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Education

Princeton University Princeton, NJ
B.S.E in Computer Science Sep 2023 - May 2027

Activities: AI@Princeton, Princeton Entrepreneurship Club, Princeton Association for Computing Machinery

Experience

EsperCare
Software Engineer Jun 2023 - Present

- Developed mobile app to allow users to interact with 3-D avatar for gamifying physical therapy.
- Developed project delivery accelerator app using Atlassian Forge and React, served on the Jira marketplace to thousands of companies.
- Served clients worth billions of dollars, creating software for use by thousands of employees.

Princeton University
Machine Learning Research Intern Jun 2022 - Aug 2022

- Developed machine learning models to model power magnetic core loss using PyTorch, Tensorflow, Pandas, and Numpy.
- Used the Fast Fourier Transform algorithm to develop a novel neural network for time series forecasting, utilizing <20% parameters than LSTM networks with <15% training time and equal performance.
- One of less than 40 participants selected nationwide to participate in the Laboratory Learning Program.

MontyHacks
Executive Organizer Jan 2022 - Apr 2023

- Organized MontyHacks V, school's first ever hybrid hackathon with over 180 participants from over 60 schools across the world.
- Managed a team of 20+ people to reach out to sponsors, organize event logistics, and market the event through social media and our website.

The Writing Institute of Princeton
Software Developer Intern Jun 2021 - Aug 2021

- Developed code for automating the collection of books and their metadata, using Python and Selenium.

Projects

CGBNet: A Deep Learning Framework for Compost Classification *Python, Tensorflow, Keras, Computer Vision, Deep Learning, Transfer Learning*
CGBNet is a framework for classifying compost to help automate composting. Co-first authored research article for CGBNet that was published in IEEE Access (3.48 impact factor and 30% acceptance rate).

Visionary *Python, Django, Django-Rest-Framework, Flutter, Dart, Tensorflow, Keras, NLP*
Visionary is an app that helps the visually impaired interact with the world through text OCR, object detection, and image captioning through Natural Language Processing and computer vision.

ConnectAnon *Flutter, Firebase, Figma, Cloud Firestore*
Connect Anonymous is a project to help teenagers connect with others from the same high school through anonymous chatting and texting. Developed the mobile app using Flutter and Firebase.

VirtualMouse *Python, OpenCV, Mediapipe, PyAutoGUI*
VirtualMouse is a program that uses computer vision and machine learning to process real-time hand movements for controlling a computer GUI.

Skills

Programming Languages: Python, Java, C++, Javascript, Dart, HTML / CSS
Libraries: Tensorflow, PyTorch, Flutter, React, Node, Flask, Numpy, Pandas, Django, OpenCV, Mediapipe
Technologies: Git, Bash, Github, Firebase, Figma, Docker, NPM, UNIX, LaTeX

Awards

Best Hardware Hack PantherHacks
Awarded Best Hardware Hack against over 350 competitors. Created Hygenie, a public safety system that uses computer vision and arduino to enforce proper hand-washing procedures. May 2022

Overall 2nd Place HealthHacks (PennApps x Wharton Undergraduate Healthcare Club)
Created Retro, an application that provides easy access to critical information for first responders in emergency situations and decentralizes the storage of medical records. Mar 2022