

# ANTHONY ZHAI

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## EXPERIENCE

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### EsperCare

*Software Engineer*

June 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.

### Princeton University

*Machine Learning Research Intern*

Jun 2022 - Aug 2022

- Developed novel machine learning models to model power magnetic core loss with PyTorch, Tensorflow, Pandas, and Numpy.
- One of less than 40 participants selected nationwide to participate in the Laboratory Learning Program.

### MontyHacks

*Executive Organizer*

Jan 2022 - April 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.

## EDUCATION

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### Princeton University

Princeton, NJ

*B.S.E in Computer Science*

Activities: Princeton Entrepreneurship Club, Princeton Association for Computing Machinery

## SKILLS

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**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

## PROJECTS

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**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.

## AWARDS

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### NASA Earth System Science Award

Nokia Bell Labs North Jersey Regional Science Fair

1 of 2 recipients for NASA Earth System Science Award, awarded to projects which incorporate studies of different spheres of the Earth system for sustainable development. Sponsored by NASA.

Mar 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

### Tests of Engineering Aptitude, Mathematics, and Science

Technology Student Association

Placed 1st in the state and 1st nationally in the TEAMS competition (based on cumulative score). Apr 2020