ANNIE FENG

azfeng8@gmail.com | https://azfeng8.github.io

EDUCATION

Massachusetts Institute of Technology

Master's of Engineering in Electrical Engineering and Computer Science

Sep 2023-(Expected Feb 2025)

Bachelor of Science in Electrical Engineering and Computer Science

Sep 2019 – May 2023

Jun 2024-

GPA: 5.0/5.0

INDUSTRY EXPERIENCE

Nvidia

AI Software Intern, DriveIX

Santa Clara

- Working on data collection and data processing pipelines for interior sensing and perception.

> Jun 2023 - Sep 2023 Santa Clara

Nvidia

AI Software Intern, DriveIX

- Worked on C++ production code for calibration and data pipeline for gaze prediction.

Nvidia

AI Software Intern, DriveIX

- Worked on 3D Reconstruction and Region Mapping, laser robot for data collection, and automating the data pipeline.

Jun 2022 - Sep 2022 Remote

PUBLICATIONS

Mobile Robotic Platform for Contactless Vital Sign Monitoring

Henwei Huang, Jack Chen, PR Chai, Claas Ehmke, Philip Rupp, FZ Dadabhoy, Annie Feng, et. al.

In Cyborg and Bionic Systems, 2022.

Assessment of the Acceptability and Feasibility of Using Mobile Robotic Systems for **Patient Evaluation**

PR Chai, FZ Dadabhoy, HW Huang, JN Chu, A Feng, et. al. In JAMA Network Open, 2021.

Personalized Radiation Attenuating Materials for Gastrointestinal Mucosal Protection

James D. Byrne, Cameron C. Young, Jacqueline N. Chu, Jennifer Pursley, Mu Xian Chen, Adam J. Wentworth, Annie Feng, et. al.

In Advanced Science, 2021.

RESEARCH EXPERIENCE

Learning and Intelligent Systems @ MIT

Sep 2023-

- Advised by Tomas Lozano-Perez.
- I'm leveraging large language models' commonsense reasoning for exploration in reinforcement learning.

Clinical Decision-Making Group @ MIT

- Advised by Dr. Amar Gupta.
- I worked on a classifier model for electronics shipping documents in PyTorch.

Little Devices Lab @ MIT May 2021-Aug 2021

Jan 2023 - May 2023

- Advised by Jose Marquez-Gomez.
- I did full-stack development of a swarm robotics system, with C++, Python, CAD, soldering, and oscilloscope. I led bring-up of new features using a website to control action sequences.

Langer Lab (Traverso Group) @ MIT

2nd Project: Vital signs monitoring on mobile robotics platform

- Advised by Dr. Henwei Huang and Claas Ehmke.
- I programmed the robot with ROS and worked on a computer vision algorithm that predicts heart rate and oxygen saturation. Resulted in publication.

1st Project: Cost-effectiveness Markov Cohort Model

- Advised by Dr. Jacqueline Chu.
- I developed cost-effectiveness model and analysis of a new medical device, and shadowed in the Mass General gastroenterology department. Resulted in publication.

SELECTED COURSEWORK

Artificial Intelligence Computer Vision (6.819); Advanced Natural Language Processing (6.806); Planning Under Uncertainty (16.420); Computational Sensorimotor Learning (6.8200); Intro to Machine Learning (6.036)

Statistics Inference and Information (6.437); Fundamentals of Statistics (18.650)

Programming Elements of Software Construction (6.031); Fundamentals of Programming (6.009)

Theoretical Computer Science Design and Analysis of Algorithms (6.046); Mathematics for Computer Science (6.042)

Electrical Engineering Circuits and Electronics (6.002); Signal Processing (6.003);

Computation Structures (architecture) (6.004)

Mathematics Linear Algebra (18.06); Differential Equations (18.03); Calculus (18.01, 18.02: A+, A+), Probability (6.041)

Physics Classical Mechanics (8.01, A+); Electricity & Magnetism (8.02, A+)

AWARDS & HONORS

Tau Beta Pi Honor Society	2022
Eta Kappa Nu Honor Society	2022
MIT Emerson/Harris Piano Scholarship	2019

TEACHING & SERVICE

Teaching Assistant

Graduate TA for AI Representation, Reasoning, & Inference (6.4110)

Tutored MIT students in Design and Analysis of Algorithms (6.046) and Intro to Algorithms (6.006).

SKILLS

Languages English (native U.S. citizen, fluent): Mandarin Chinese (limited) **Programming** <u>Proficient</u> in Python (5+ years), <u>Experienced</u> in C++, Typescript (2+ years) Keywords Software Engineering, Machine Learning, Data Pipelines, Robotics, Python, C++ May 2020 - Sep 2020

Jan 2020 - Feb 2020

Fall 2023

Spring & Fall 2022