

FRANKLIN ZHU

✉ ftzhu0225@gmail.com

Education

California Institute of Technology

Sep 2022 – Jun 2026

BS Electrical Engineering, Minor in Mathematics

Pasadena, CA

- Coursework: Analysis of Systems and Circuits, Physics, Differential Equations, Probability Theory and Models, Linear Algebra, Discrete Mathematics
- Activities: Student Investment Fund, Ultimate Frisbee, Caltech Racing

Experience

Tesla

Jun 2024– Sep 2024

Analytics Engineer Intern

Fremont, CA

- Transformed raw data streams into product analytics dashboards
- Formulated and productionized data migration strategies, reducing data storage costs improving query performance
- Built an internal tool for root cause analysis of regression test failure using reflection and dynamic SQL queries

Caltech Nanofabrication (Scherer) Group

Jun 2023– Dec 2023

Undergraduate Researcher

Pasadena, CA

- Researcher on the imaging team studying analytical electron microscopy on traditional thin-sections, as well as reflection electron microscopy
- Carried out investigations on the synthesis and characterization of nanomaterials for energyefficient optics and photonics applications

Code Ninjas

May 2022– Aug 2022

Programming Instructor

Irvine, CA

- Mentored students in C++, JavaScript, and Python in programming fundamentals.

Projects

Algorithmic Sports Betting

Dec 2023– May 2024

Personal

- Leveraged DFS to search through different sports books and find different bets with positive expected values or arbitrage opportunities
- Used Pandas, Numpy, and different ML techniques to optimize betting strategies

Smart Racer

Aug 2021– Feb 2022

Science and Engineering

- Used Numpy, OpenCV, and Raspberry Pi while leveraging knowledge of machine learning, motor control, and computer vision to develop an autonomous vehicle capable of navigating a miniature track

Skills and Interests

Skills: Python, Java, C++, Matlab

Interests: Basketball, Acapella, Cars, Finance

Languages: English (Native), Mandarin (Fluent), Spanish (Intermediate)