



AMANDA PIYAPANEE

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Education

California Institute of Technology (Caltech)

Bachelor's of Computer Science

3.8/4.0 GPA

Graduating June 2023

Relevant Coursework: Algorithms, Machine Learning (**Python**), Software Design (**C**), Data Structures (**Java**), Computing Systems (**C**)

Work Experiences

Incoming Software Engineering Intern

June 2022 - Sept 2022

Meta (formerly Facebook)

Software Engineering Intern

June 2021 - Sept 2021

Salesforce

Implemented new architecture with relational databases to optimize data processing for GBs of data in Bulk API 2.0 (REST API) in **Java** and **SQL** to production. As a part of the Enterprise API Team, I worked with a complex legacy codebase, wrote thorough unit & functional tests, pair programmed remotely with an engineering mentor, and used Agile for weekly updates.

Researcher

March 2021 - Aug 2021

Caltech (Claire Ralph and Hillary Mushkin)

Developed a high-level framework for machine learning engineers to account for personal bias in speculative algorithm design in student research team. Currently developing research paper.

Data Science Research Fellow

June 2020 - Aug 2020

Caltech (Division of Biological Engineering, Wagenaar Lab)

Created data visualizations, developed ML models, and cleaned data in **Python** and **SQL** to contribute to a database of leech data and a computational model of a nervous system (Perpall Semi-finalist - research presentation competition).

Projects

Caltech Robotics: Developed an ML depth estimator using a GAN (generative adversarial network) in **Python**

Pinball (General Physics Simulator): Developed pinball game end-to-end in **C** with team. Developed physics simulator from classical mechanics formulae, front-end interface, and tests for accuracy of formulae

Malloc: Implemented a dynamic memory allocator in **C** (malloc, calloc, realloc) using debugging tool GDB

Official Caltech Website: Hired by Caltech to develop the official Physics 2a course website

Leadership & Honors

Electronic Trading Competition (Jane Street Los Angeles ETC)

Nov 2019

Developed a linear regression perceptron in **Java** to maximize profits on a stock market (arbitrage strategy). 4th Place

Board of Directors (Fair Bytes - AI Education nonprofit)

March 2021 - Current

Currently managing interview series with professionals in AI. Advancing AI education through online content

President (Datamatch @ Caltech)

Dec 2020 - Current

Founded, promoted, troubleshooted, and organized a virtual matchmaking platform for Caltech undergrads to meet undergrads at Caltech and UCLA. Achieved participation rate of over 50% of Caltech undergraduate students in 1st year of release

Co-President (Techreach)

Sept 2020 - Current

Interviewed Google AI Senior Research Scientist Emily Denton. Organized and hosted zine-making workshop. Exploring the societal impacts of technology through workshops, community discussions, and partnerships with local orgs

Hackathon Organizer (Hacktech)

Nov 2020 - March 2020

Invited speaker & hosted Director of NASA JPL Larry James. Reviewed 250+ applicants. Improved Hacker Experience

Skills

Programming

Java, Python, C, SQL, Matlab, OCaml, Swift, Haskell

Tools

Git, Linux, Agile, Jupyter Notebook, Vim, Unix, Figma, Adobe Suite, Mathematica, LaTeX