

# AMANDA PIYAPANEE

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## Education

### California Institute of Technology (Caltech)

3.7/4.0 GPA

Bachelor's of Computer Science

Graduating June 2023

Courses: Algorithms (C), Machine Learning Research (Python), Software Design (C), Computing Systems (C), Data Structures (Java)

## Work Experiences

### Incoming Software Engineering Intern

June 2022 - Sept 2022

Meta (formerly Facebook) - AI Content Understanding Team

### Software Engineering Intern

June 2021 - Sept 2021

Salesforce - Enterprise API Team

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. 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 - supervised by Claire Ralph and Hillary Mushkin

Helped develop a high-level framework for machine learning engineers to account for personal bias through speculative algorithm design in student research team.

### Data Science Research Fellow

June 2020 - Aug 2020

Caltech - Wagenaar Lab, Division of Biological Engineering

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

**Various ML Projects:** Developed in Tensorflow, keras, and Pytorch libraries. Projects ranging from reimplementing various models (CNNs, DNNs) to developing with RNNs, Markov Chains, SVD, GANs, Deep Learning, Bootstrap, and more

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

**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

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

## Leadership & Honors

### President (Datamatch @ Caltech)

Dec 2020 - Jan 2022

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

### President (Techreach)

Sept 2020 - Current

Co-lead a course discussing current modern computing issues in society. 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

### 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

### Electronic Trading Competition (Jane Street Los Angeles ETC)

Nov 2019

Developed in **Java** to maximize profits on a stock market with an arbitrage strategy. 4th Place

## Skills

### Programming

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

### Tools

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