# **ANGELA (ZI LAN) ZHANG**

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#### **EDUCATION**

Dartmouth College, Hanover, NH

**Expected June 2023** 

B.A. Computer Science and Quantitative Social Science

Honors/Awards: Honors Roll Recipient, Recruited Division I Athlete, All-Time School Program Record Holder for Women's Golf

York House High School, Vancouver, BC

Honors/Awards: 5x Honors Roll, AP Scholar with Distinction, National AP Scholar, AP International Diploma

June 2019 GPA 4.0/4.0

GPA 3.83/4.0

#### **WORK EXPERIENCE**

Amazon, Seattle, WA

June - September 2021

Software Development Engineer Intern

- Promoted to junior-level internship after several rounds of technical and behavioral interviews, despite applying for a sophomore position
- Collaborating with experienced cross-disciplinary Amazonians to conceive, design, and bring innovative products to market (project TBD)

Digital Applied Learning and Innovation (DALI) Lab, Hanover, NH

August 2020 - Current

- Software Engineer
  - Admitted as one of the youngest members to the <u>tech-entrepreneurial program</u> after a rigorous selection process
  - Worked part-time to create products for companies around the world in teams of designers, engineers, PMs
  - Most recently a full-stack and data visualization developer for a fullstack web-based beetle outbreak prediction project (see project below)

Dartmouth Academics Skill Center, Hanover, NH

April 2020 - Current

CS Teaching Assistant & Math and CS Tutor

- · As a TA, led weekly coding sessions for students, grading and reviewing their code and homework
- As a tutor, helped 5 assigned peers to achieve 90%+ in Calculus and Python classes in a 1:1 setting
- · Provided feedback to simplify complex concepts, debug, improve efficiency and decrease memory usage
- Established trust by being accessible, patient, and empathetic

### PERSONAL TECHNICAL PROJECTS (IN REVERSE CHRONOLOGICAL ORDER)

To-Do List Web App (Fullstack) | https://github.com/azhang4216/to-do-list

January 2021

- Created using Node.js with Express.js and other JS frameworks / libraries including mongoose, body-parser, dotenv, ejs, lodash
- Deployed the web app with a MongoDB Atlas cloud database to Heroku

Simon-Says Game (JS) | https://github.com/azhang4216/simon-says

January 2021

• Made a fun, interactive, visually-and-auditorily-simulating game using JS, DOM manipulation, jQuery

Pine Beetle Infestation Visualization and Prediction Web Tool (Fullstack) | https://spbpredict.com

September - November 2020

- Built and deployed a web tool backed and funded by the US Forest Service
- · Visualized southern US pine-beetle outbreak data and generated outbreak predictions in an interactive format
- Integrated designers' UI/UX research and design on client-side using React.js, Redux, and front-end JS libraries
- Improved prediction generation time from several minutes to seconds by rewriting the backend data pipeline using Express.js and Mongoose

Amazon Product Quality Prediction Tool (ML) | email me if interested in seeing code

September - October 2020

- Developed a machine learning model that predicts the quality of an Amazon grocery product with high precision and recall (F1 = 0.87)
- · Cleaned and processed product review data using TFIDF vectorizer, normalizing, and SMOTE oversampling
- Trained several classifiers using processed data, e.g. logistic regression, naïve bayes, decision tree, linear SVC, k-neighbors, neural networks

Adaboost Algorithm from Scratch (ML) | https://github.com/azhang4216/ML-Adaboost

September 2020

- Wrote an Adaboost Algorithm compatible with any ML classifier from scratch, showing deep understanding of classifiers
- Improved F1 score by roughly 0.7 across all 3 ML classifiers tested using this Adaboost Algorithm alone

Sudoku Backtracking Solver (Algorithms) | https://github.com/azhang4216/sudoku-solver

August 2020

Inspired by matrix problems, developed an efficient sudoku solving algorithm that runs at O(n<sup>m</sup>) instead of brute force O(n ^ n²)

Personal Website (Frontend) | https://github.com/azhang4216/angelazz.me

April 2020, with ongoing updates

- Created with HTML/CSS/JS and Bootstrap
- · Set up hosting and DNS with registered domain

Twitter-Reddit Content Sharing Optimization (Python, API) | https://github.com/azhang4216/reddit-twitter-api

April 2020

- · Made with only introductory CS knowledge and self-study, with goal of uplifting people during shelter-in-place with memes and laughter
- Leveraged Reddit's effective upvote system and Twitter's accessibility for optimal content sharing through Twitter and Reddit's APIs, allowing users to tweet / source top-rated subreddit memes

Independent Research: Divisions of Wealth at Dartmouth College (R, Statistics) https://github.com/azhang4216/divisions-of-wealth

September 2019

- Conducted a campus-wide independent research inspired and fascinated by the socio-economic diversity at Dartmouth
- Yielded a statistically significant yet minor result of non-wealthy appearing students appearing more friendly than wealthier counterparts

## LEADERSHIP, ATHLETICISM & CO-CURRICULAR ACTIVITIES

CS Hackathons, Competitive Developer

January 2021 - Current

· Demonstrated passion for coding through participation in several hackathon events, such as HackDavis, FemmeHacks Dartmouth Women's Golf, Division I Student Athlete

• Collegiate Awards: All-Time Dartmouth Program Record Holder, WGCA All-American Scholar, Rookie of the Year, Co-MVP

August 2019 - June 2020

- Pre-Collegiate Awards: BC Junior Girls Champion 2019, Canadian National Future Links Champion 2017, T3 Canadian Junior Girls 2018

Women in Computer Science, Member

September 2019 - Current

• Formed an active, supportive community of women in CS at Dartmouth through meetings, professor events, discussions, mentorship, etc.

Dartmouth Agape Student Group, Outreach & Event Coordination Committee

September 2019 - Current

- Spearheaded club promotion and outreach to incoming freshmen, resulting in 20+ new freshmen members
  - Transformed and adapted membership events to an online format in unprecedented COVID times