# ANGELA (ZI LAN) ZHANG

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## EDUCATION

Columbia University, New York, NY — **September 2019 – June 2021**
*B.A. Computer Science* — GPA N/A
Transferred to Columbia College following Dartmouth's elimination of sports programs

Dartmouth College, Hanover, NH — **September 2019 – June 2021**
*B.A. Computer Science and Quantitative Social Science* — GPA 3.83/4.0
Honors/Awards: Honors Roll Recipient, Recruited Division I Athlete, All-Time School Program Record Holder for Women's Golf

## WORK EXPERIENCE

Amazon, Seattle, WA — **June – September 2021**
*Software Development Engineer Intern*
- Promoted to junior-level internship after interviews, despite applying for a sophomore position
- Collaborating with experienced cross-disciplinary Amazonians to conceive, design, and code asynchronous layer merging project (see project below)
- Given a return offer for Summer 2022

Digital Applied Learning and Innovation (DALI) Lab, Hanover, NH — **August 2020 - Current**
*Software Engineer*
- Admitted as one of the youngest members to the tech-entrepreneurial program 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
- Established trust by being accessible, patient, and empathetic

## PERSONAL TECHNICAL PROJECTS (IN REVERSE CHRONOLOGICAL ORDER)

Layer Merging Behind Function States (Backend, API) | AWS CP Functions Control Team — **June – September 2021**
- Solved a Java-SDK timeout issue when merging larger Lambda Layers by moving the layer merge operation to an asynchronous path
- Improved the client's layer merging call response time by up to 80% by creating a database table that tracks the status of the layer merge
- Wrote the project design doc based on customer needs and design specs; approved with little to no changes by the team on the first presentation

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 $O(n^m)$ instead of brute force $O(n \wedge n^2)$

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

## 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

Collegiate Varsity Women's Golf, *Division I Student Athlete* — **August 2019 – Current**
- Collegiate Awards: All-Time Dartmouth Program Record Holder, WGCA All-American Scholar, Rookie of the Year, Co-MVP
- 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 – June 2021**
- Spearheaded club promotion and outreach to incoming freshmen, resulting in 20+ new freshmen members