Annie Cao

Permanent Address
126 E Wedgwood Dr.
Yorktown, VA 23693

alc3pf@virginia.edu
(757) 291-8155
https://annie-cao.netlify.app/

Current Address
126 E Wedgwood Dr
Yorktown, VA 23693

EDUCATION

HackCville, Charlottesville, Virginia   *March 2020 – June 2020*
Launch Program, Software Engineering Track
- Studied and practiced software engineering and professional skills in a selective, extracurricular, intensive program
- Built series of small applications individually and in groups using React and Firebase Realtime Database

University of Virginia, Charlottesville, Virginia   *Class of 2022*
College of Arts & Sciences Undergraduate   *Computer Science, Statistics with Biology Concentration / GPA 3.97*
- Completed coursework: Operating Systems, Data Analysis with Python, Algorithms, Machine Learning, Cloud Computing, Database Systems, Computer Networks, Artificial Intelligence, Cybersecurity, Program and Data Representation, Computer Architecture, Advanced Software Development, Discrete Mathematics, Elementary Linear Algebra, Probability, Calculus I & II

WORK EXPERIENCE

Department of Computer Science at the University of Virginia, Charlottesville, VA   *September 2020 – May 2022*
Teaching Assistant for Software Development Methods, Machine Learning, and Data Structures and Algorithms I
- Software Development Methods and Data Structures and Algorithms I: Hold weekly office hours (4 hours) to help students understand programming in Java; meet weekly with 2-6 student cohorts (3-5 students each) to provide more focused aid
- Machine Learning: held office hours (3 hours), graded assignments with feedback, and generated exam questions about machine learning concepts including regression, classification, reinforcement learning, and more fundamental ML ideas

Digital Capital Solutions, Washington, D.C. (Remote)   *July 2020 – January 2022*
Software Engineer Intern
- Updated and added features to DCS's main website; worked in a team of 4 to build a social media app using React Native Expo
- Collaborated in a team of 6 to generate a mobile template application to present resources, information, and alerts for a given town using React Native, Android Studio, and Figma

TD Securities, New York City, NY   *June 2021 – August 2021*
Technology Analyst on Quantitative Modeling and Analytics Team
- Generated a python script to automate daily generation of bond analytics reports, which included the generation of Nelson-Siegel models, yield curves, charts on top 5 richest and cheapest bonds, and other bond analysis data
- Contributed new endpoints to an internal REST API that retrieves bond information

PreHealthPivot, San Francisco, CA (Remote)   *July 2020 – January 2021*
Website Editing and Development Intern
- Generated a new custom React website for PreHealthPivot, adding user authentication and authorization, incorporation of Firebase Realtime Database, and new custom sections for the website
- Workshopped and maintained the current PreHealthPivot site on Squarespace; coded a Python script to use SendGrid Email API and Google Sheets API to automatically send emails to those who filled out a mentoring survey

PROJECT EXPERIENCE

Recycle Buddy, Charlottesville, Virginia   *March 2021*
Programmer
- Built a mobile application where users upload pictures of disposable items to have the app classify the item as recyclable, compostable, or garbage; made Flask REST API which employed an ensemble learning classifier for mobile app to interface with
- Technology stack included React Native, Firebase Cloud Storage, Scikit-learn; worked in a team of 4; demo: https://devpost.com/software/recycle-buddy-wkc32q

Creative Corner, Charlottesville, Virginia   *May 2020*
Co-Designer and Co-Programmer
- Created a web application for writers to share, edit, and explore stories; two-part project with part 1 completed during a 48-hour MLH hackathon RookieHacks and part 2 completed as a project for the class Database Systems
- demo: https://devpost.com/software/rookiehacks101 (part 1), http://cs.virginia.edu/~alc3pf/ajax/project/index.php (part 2)

Textbook Exchange, Charlottesville, Virginia   *February 2020 – April 2020*
Requirements Manager and Programmer
- Worked with four classmates in the course Advanced Software Development to create textbook exchange application using Python, Django, Heroku, and Travis CI as well as MVC design; accessible here: https://textbooks-exchange.herokuapp.com/
- In charge of eliciting requirements from stakeholders and creating requirements document to guide overall project
- Integrated PostgreSQL and external APIs to enable user data and profiles, posting/managing textbooks for sale, and efficient browsing of available textbooks; utilized agile methodology during development

SKILLS

- Python, Java, R, C++, C, PowerShell, JavaScript (React), HTML/CSS, x86 Assembly, Bash, PHP, SAS, Linux, Bootstrap
- Django, Heroku, Travis CI, GitHub, Firebase Realtime Database, PostgreSQL, SQL, FinTech, React Native, Figma