

PATRICIA TSE

Student ● Aspiring Software Developer

CONTACT



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pktse.github.io/Portfolio/

EDUCATION

University of California, Berkeley

B.A. in Computer Science,

expected December 2022 (3.84 GPA)

Regents' and Chancellor's Scholar

Relevant Coursework: Data Structures;
Efficient Algorithms and Intractable Problems;
Introduction to Artificial Intelligence; Computer
Security; Introduction to Database Systems

SKILLS

Python	<div><div></div></div>
Java	<div><div></div></div>
Web Programming	<div><div></div></div>
troubleshooting	<div><div></div></div>
adaptive	<div><div></div></div>
collaborative	<div><div></div></div>

PROFESSIONAL EXPERIENCE

Amazon

SDE Intern: Alexa Shopping; May 2022 - August 2022

- improve internal portal tool to validate data by modifying the back-end in Java with API calls + check logic and adding UI to front-end in JSP and Spring framework, reducing main source of test failures caused by internal tool
- added new paths to take internal portal tool inputted data, encrypt and store into AWS S3 buckets, retrieve and create tests using data.

Amazon

SDE Intern: Alexa Shopping; May 2021 - August 2021

- designed, created, and optimized a smart finite state machine to automate and parallelize the process of refreshing test accounts in Java
- reduced time of manual dev work by 75% — what took around 16 hours

EXTRACURRICULAR

Sotira

Full-Stack Developer; February 2020 - Present

- develop frontend and generate dynamic visualizers and landing pages using React
- work on backend by creating schema models and routes in TypeScript to modify data in MongoDB and access external APIs like Etsy API

Regents' and Chancellor's Scholar Association

Web Development Committee Co-Coordinator; May 2021 - May 2022

- collaborate with fellow members + use Bootstrap, HTML, CSS, and Javascript to maintain the RCSA (Regents' and Chancellor's Scholars Association) website which services 800+ active scholars
- manage weekly meetings to teach committee members HTML, CSS, Javascript, and Git + delegate tasks + plan overall goals for the year

PROJECTS

Chord-Generator and Synth; May 2020 - Present

- create the GUI of a synth to play 22 chords based on the inputted key in Java
- working on a system that analyzes the emotion of text and generates a matching chord progression

Markov Chain Melody Generator; April 2021 - May 2021

- implemented a program that scans an inputted MIDI melody, generates a Markov model, and composes a melody based on the Markov model in Java

End-to-End Encrypted File Sharing System; October 2021 - November 2021

- design + implement a client application for a IND-CPA secure file sharing system using cryptographic concepts (HMAC, digital signatures, public key encryption) in Golang