Lillian Lee

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EDUCATION

Harvey Mudd College, Claremont, CA *Expected May 2024*
B.S. Computer Science // GPA: 3.73 (Dean's List: 2021 ~ 23)
Relevant Coursework:
- Robot Programming, Data Structures and Program Development, Computability and Logic, Computer Systems
- Algorithms, Programming Languages, Domain-Specific Languages, machine learning workshops
- Multivariable Calculus, Discrete Math, Linear Algebra, Differential Equations, Probability

SKILLS

Technical Languages: Python, Javascript, Java, Haskell, Scala, C++
Front end: HTML, CSS, Vue, Vuetify, React
Back end: Flask, Spring Boot
Databases: Firebase, SQLAlchemy, PostgreSQL

Version control: Git, Github, Bitbucket
Misc: emacs, Jira, Agile, graphic design, Photoshop
Languages: English, Korean

RELEVANT EXPERIENCE

Maxar Software Engineering Intern *May ~ August 2023*
Herndon, VA
- Performed **full-stack** role in 3 deployed projects that use RESTful APIs to collect data from over 10,000 satellites and generate simulations through a powerful physics-based software
- Coded features requested by customers like importing files, virtual scrolling, and customizing satellites with **JS** and **Vue**
- Created endpoints in **Java** for filtering data using **Springboot** and **PostgreSQL** queries, and wrote **JUnit** test cases
- Generated satellites' field of regards by calling endpoints and displayed it on a 3D globe using Cesium, a JS library
- Utilized the **Agile scrum methodology** with **Jira** and delivered updates at daily scrum meetings
- Took initiative to organize weekly events for all interns in office to promote a collaborative working environment

Multi-tier Caching: CS Research *May ~ July 2022*
Harvey Mudd College, Claremont, CA // Stony Brook University, Stony Brook, NY
- Improved multi-tier caching by creating more comprehensive metrics based on simulations and physical testing
- Simulated a computer executing a CloudPhysics workload trace using **FIO** and **OpenCAS** and calculated various metrics in **Python** to analyze indicators of better performance
- Created a **machine learning model** from traces to predict computer performances across varying cache sizes
- Reduced code runtime by **40%** by working with profilers and careful step-by-step debugging

Scripting for All: CS Research *June ~ August 2021*
Harvey Mudd College, Claremont, CA
- Coded self-structured projects for teachers with the theme of showing CS applications in fields like math and physics
- Implemented back end with **Flask**, front end with **React**, and database with **SQLAlchemy** for multiple educational-based web-apps that were developed under direct customer feedback
- Presented to teachers for the Math for America program and lead a demonstrative workshop on CS applications
- Co-authored "Curricular and community resources: supporting scripting for all" which was published in the Journal of Computing Sciences in Colleges

PROJECTS

Coding with Wally // github.com/lillee205/codingwithwally
- Developed Python coding site that asks beginner CS students to solve a given prompt using **Flask** and **Python**
- Provided test case generators and other methods of approaching a problem rather than the singular method of simply coding it in order to promote comprehension

WeSearch // github.com/jeffreyL02/weSearch
- Designed the UI in **Figma** and coded full stack in **JS** for a web-app that organizes search parties for missing people
- Utilized **Firebase** to store sessions, messaging, user data, and also used it to host the web-app
- Won **1st place** in the 2019 Congressional App Challenge for one of the most competitive districts out of the 284 participating districts

LEADERSHIP

Associated Students of Harvey Mudd College (ASHMC) Club Director // Claremont, CA *May 2021 ~ Present*
- Regularly reached out to all club presidents and provided valuable leadership and logistics training
- Organized college-wide events like the Club Fair where logistics included hiring outside vendors and booking spaces
- Communicated with college's deans to effectively relay information about school operations to student body

Spectrum Yearbook President, Harvey Mudd College // Claremont, CA *October 2020 ~ Present*
- Managed a team of 10 members by using **Asana's scrum board** to delegate tasks for timely completion of the yearbook
- Calculated and requested yearly budgets, and also managed sales through an online platform

CODE Team Vice-Captain, Glen A. Wilson High School // Hacienda Heights, CA *January 2017 ~ May 2020*
- Planned events such as school hackathons, summer code camps, and Arduino workshops for middle and high schoolers
- Competed in various hackathons and competitions like HackSC and the High School Programming Contest