Allen Li

Cupertino, California, 95014
1-408-797-4395

allli@umich.edu

ACHIEVEMENTS

- ICPC 2021 World Finals Competitor
  - One of 19 teams representing NA in ICPC World Finals, the most prestigious college algorithms competition.
- Google Codejam Round 2 Qualifier
  - Top 4% competitor in Google's annual international open algorithmic competitive programming competition.
- USACO Platinum
  - Platinum is the highest division in the national USA Computing Olympiad, an algorithmic competition.

EDUCATION

University of Michigan, Ann Arbor   GPA: 4.0/4.0
B.S.E. in Computer Science + Music Minor   Aug. 2020–Current (Expected May 2023)

  - A+ in EECS 281 (Algorithms), A+ in EECS 376 (Theory of Computation), EECS 445 (ML) in progress
  - Tau Beta Pi Scholarship Award Recipient and Current Active Member

WORK AND RESEARCH EXPERIENCE

Amazon, Inc.   Santa Clara, CA
AWS Software Development Intern (Machine Learning Device Inference)   May 2021 - July 2021

  - Exceeded expectations by completing two commercially impactful projects in eleven weeks.
  - **Project 1: Containerization and Nightly Testing (7 Weeks)**
    * Used Docker and AWS services (EC2, S3, ECR) to containerize the AWS machine learning inference binary on multiple OS to be self contained with dependencies.
    * Significantly improved customer experience by removing dependency issues and allowing faster deployment.
    * Deployed Python testing script to run integration and unit tests on devices using containers every night.
    * Successfully released to customers and available to download and deploy.
  - **Project 2: Python Bindings (4 Weeks)**
    * Generated bindings for existing C machine learning APIs using pybind11.
    * Bindings allowed customers to use Python interface instead of C with an easy to install and use module.
    * Highly requested by customers and easy to get up and running.

UMich Biomedical and Clinical Informatics Lab   Ann Arbor, MI
Undergraduate Researcher   Sep. 2020 - May 2021

  - Participated in a leading bioinformatics research lab focusing on using computing for medical purposes.
  - Used MATLAB to improve a lung segmentation algorithm, automating the process of outlining lung boundaries.
  - Extracted features from chest x-rays and trained a model that is 85% effective at diagnosing patients with ARDS, a highly deadly respiratory syndrome. Used the scipy library in Python.

Vivalink, Inc.   Campbell, CA
Software Engineering Intern   Dec. 2020 - Feb. 2021

  - Converted novel blood pressure algorithm from Python to C++ to allow the efficient deployment of the algorithm onto a mobile platform.

PROJECTS

See project source code at github.com/allenli873

- "Pysheen Bot" (Python, Discord.py)
  - Short Python Discord bot made for my competitive programming/gaming discord server.
  - Leverages Discord API and web scraping to perform useful and fun tasks.

TECHNOLOGIES

- **Skills:** Experienced with Computer Algorithms. Proficient in Python, C++, Java, MATLAB, and using Docker and AWS services. Familiar with HTML, CSS, Swift.