Allen Li

allli@umich.edu

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

Achievements

- ICPC North American Championship Competitor
  - Among the top 50 teams nationwide in ICPC, the most prestigious collegiate 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 — Ann Arbor, MI

Bachelor's Degree in Computer Science, GPA: 4.0/4.0 — Aug. 2020–Current (Expected May 2023)

- A+ in EECS 281 (Algorithms), A+ in EECS 376 (Theory of Computation)

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 (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 reduced customer pain points with dependency issues and allowed for faster deployment.
  - 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 alleviate customer pain points by allowing API calls using a Python interface instead of C.
  - Highly requested by customers and easily installable

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.