Skills

Email: moses@mosesxu.net

plasmatic1

• Languages: Python, C/C++, HTML/CSS/JS, Node.JS & TS, Java, Kotlin

• Tools/Frameworks: Django, Git, Flask, Express, Docker, Nginx

• Platforms: Windows, Linux, GCP

Experience

• AMD: Software Engineering Intern

Remote

Worked on debugging tool for 200+ KMD developers across the development cycle (C++, Python) May 2022 – Aug 2022

- o Added feature to inspect hardware scheduled queues, enabling debugging of critical launch-gating issues
- o Proposed and implemented improvements used across unit (GTest, GMock) and CI test infrastructure
- o Implemented overhaul of UI library

Programming Contest Organizer & Author

Remote

Organized contests, created algorithms problems and prepared tests and graders

Sep 2019 - Present

- **Codeforces LATOKEN Round 1**: Algorithms contest with 18,000+ participants sponsored by LATOKEN. Contest preparation done with C++
- DMOJ Contests: Organized contests with hundreds of participants %

• WePlate O - Backend Engineer

Remote

Designed, developed, and deployed (Python, Django) backend system for nutritional insights

Jan 2022 - June 2022

- o Created an algorithm using Simulated Annealing to generate optimized portion sizes
- Processed and served mass amounts of cafeteria scheduling and nutritional data (10,000+ items)
- o Managed deployment of service using Google Cloud

Awards/Competitions

- ICPC ECNA Regionals 2021: Placed 4th at the 2021 ECNA contest as part of top team Waterloo Black
- Google Code Jam 2021
 - Major algorithms competition with 90,000+ participants
 - Placed 3rd of Canadian participants in Round 3 (165th overall)
- 2021 Canadian Computing Olympiad: Silver medalist, the CCO is an invite-only (top ∼40 CCC participants in 2021) team selection test for the Canadian IOI team
- **2021 Canadian Computing Competition**: Placed 1st out of 2,900+ participants at Canada's most prestigious high school programming contest

Projects

• Competitive Programming Tools (7)

Python module for Competitive Programming

- Tools that greatly speed up implementation and debugging during programming contests, including automated local testing, stress testing tools, and browser intrgration
- Also available as a VSCode extension with a convenient UI (TS, React)

Personal Webserver

Web services managed with Docker and Nginx

- Rating Badges: Dynamic SVG badges displaying user rating (TS, Express)
- o DMOJ solution searcher: Searchable solution database of 1,400+ problems using Django

Education

University of Waterloo

Waterloo, ON

Candidate For Honours Bachelor of Computer Science; Major Average: 97.8%

Sep 2021 - Present

- Coursework: Linear Algebra I (Adv) (95%), Calculus II (Adv) (97%), Elementary Algorithm Design and Data Abstraction (Adv) (100%)
- o Scholarships: \$8,000 Faculty of Mathematics scholarship, \$2,000 President's Scholarship of Distinction