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 AMD kernel-mode drivers using C++ and Python

May 2022 - Aug 2022

- o Added feature allowing driver developers to inspect hardware scheduling queues
- o Implemented complete overhaul of output formatting library
- o Proposed and implemented improvements to test infrastructure

Programming Contest Organizer & Author

Remote

Organized contests, created algorithms problems and prepared tests and graders

Sep 2019 - Present

- \circ 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 — 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
- o Processed and served mass amounts of cafeteria scheduling and nutritional data (10,000+ items)
- Managed deployment of service using Google Cloud

Awards/Competitions

Google Code Jam

Remote

Major algorithms competition with 90,000+ participants in 2021

Apr 2019 - Present

- o Placed 3rd of Canadian participants in Round 3 2021 (165th overall)
- Round 3 Qualifier in 2020 and 2021 (top 1,000 participants)

Canadian Computing Olympiad

Waterloo, ON

Canada's most prestigious high school programming/algorithms contest

Feb 2021 - May 2021

- 2021 Canadian Computing Olympiad (CCO) Silver Medalist, an invite-only (top ~40 CCC participants in 2021) team
 selection test for the Canadian IOI team
- 2021 Canadian Computing Competition (CCC) Placed 1st out of 2,900+ participants with a perfect score

Projects

Competitive Programming Tools (7)

Python module for Competitive Programming

- o 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%)
- Scholarships: \$8,000 Faculty of Mathematics scholarship, \$2,000 President's Scholarship of Distinction