Moses Xu

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⚲ mosesxu.ca ⚙ plasmatic1

Skills

- **Languages**: Python, C/C++, HTML/CSS/JS, Node.JS & TS, Java, Kotlin
- **Tools/Frameworks**: Django, Git, Flask, Express, Docker, Nginx
- **Platforms**: Windows, Linux, GCP

Education

- **University of Waterloo**   Waterloo, ON
  Candidate For Honours Bachelor of Computer Science; Major Average: 97.8%   *Sep 2021 – Present*
  - **Coursework**: Elementary Algorithm Design and Data Abstraction (Adv) (100%), Object-Oriented Programming (Adv), Combinatorics (Adv), Foundation of Seq. Programs (Adv), Logic and Computation (Adv)
  - **Scholarships**: $8,000 Faculty of Mathematics scholarship, $2,000 President's Scholarship of Distinction

Experience

- **AMD: Software Engineering Intern**   Remote
  Worked on debugging tool for 200+ KMD developers across the development cycle (C++, Python)   *May 2022 – Aug 2022*
  - Added feature to inspect hardware scheduled queues, enabling debugging of critical launch-gating issues
  - Proposed and implemented improvements used across unit (GTest, GMock) and CI test infrastructure
  - 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 ⚙ – Backend Engineer**   Remote
  Designed, developed, and deployed (Python, Django) backend system for nutritional insights   *Jan 2022 – June 2022*
  - 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)
  - 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*
  - 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 ⚙ ⚙**
  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)
  - **DMOJ solution searcher**: Searchable solution database of 1,400+ problems using Django