Moses Xu

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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

Experience

- **Programming Contest Organizer (Codeforces and DMOJ)** — Online
  Organized contests, created and prepared algorithms problems — *Sep 2019 – Present*
  - **Codeforces LATOKEN Round 1**: Algorithms contest with **18,000+** participants sponsored by LATOKEN. Problems were prepared in C++ using Codeforces' Polygon System
  - **Mock CCC**: Contests in 2020 and 2021 with 200+ participants
  - **CPC**: Contests in 2019 and 2021 with 100+ participants
- **Focal Healthcare** — Toronto, ON
  Test/Documentation Engineering — *Aug 2019*
  - Wrote scripts that formatted and validated product specifications and manual tests
  - Used Python with python-docx and xlsxwriter packages

Awards/Competitions

- **Canadian Computing Olympiad** — Waterloo, ON
  Canada's most prestigious high school programming/algorithms contest — *Feb 2018 – Feb 2021*
  - 2021 Canadian Computing Olympiad (CCO) Silver Medalist, an invite-only (top ∼40 CCC participants this year) team selection test for the Canadian IOI team
  - 2021 Canadian Computing Competition (CCC) – Placed **1st** out of **2,900+** participants with a perfect score
- **Google Code Jam**
  Major algorithms competition that gathered **90,000+** *participants last year* — *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)

Projects

- **Competitive Programming Tools**
  Python module for Competitive Programming
  - Contains a suite of tools for algorithms problems, including automated local testing, stress testing tools, and integration with browser extensions
  - Formerly a VSCode extension written in TypeScript with React.JS and the VSCode API
- **Algorithms & Data Structures Library**
  60+ Data Structures & Algorithms templates (in C++) built to be easily integrated into existing solutions
  - Includes a variety of algorithms: graphs, strings, data structures, combinatorics and number theory, etc.
  - Automated testing integration using GitHub actions with *online-judge-tools/verification-helper*
- **LetterGrid**
  Online head-to-head typing-based strategy game made for Hack the North 2021
  - Built using React.JS (UI), Flask (backend), and Socket.IO (communication between client and server)

Education

- **University of Waterloo** — Ontario, 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