

Bowen Luo

Portfolio: plop.github.io

Email: bowen.luo@gmail.com

Github: <https://github.com/plop>

Languages: C#, C++, C, Python, Java, Javascript

Interests: AI/ML, Graphics, Cloud/Distributed Computing, Compilers, DBs

EXPERIENCE

Arista Networks | Incoming Software Engineer

Sept 2022 - Dec 2022

- Incoming cloud computing intern at Arista.

Oracle Netsuite | Software Developer (Java, JavaScript)

Jan 2022 - Apr 2022

- Implemented objects for data storage and services for data manipulation, wiring (Guice), persisting, and exposing SQL entries for frontend access **to support Oracle Netsuite platform rewrite**.
- Built frontend pages (React/Preact) and corresponding endpoints, researching and implementing UMD record querying for request validation.

Oracle Netsuite | Software Developer (Java, SQL)

May 2021 - Aug 2021

- Wrote and upgraded SQL endpoints to fetch and manipulate data and performed unit/integration tests (JUnit, Mockito).
- Implemented scheduled SQL tasks and delivered front-end features to a web-based application (UIF, JS) **improving user useability and functionality** corresponding to client feedback.

Martello Technologies | Software Developer (C#)

Sept 2020 - Dec 2020

- Individually upgraded the backend codebase of a data consolidation platform (ELK Stack) migrating between major versions of Elasticsearch, **creating new data visualization options**.
- Wrote and maintained integration/regression tests (Akka.NET, Moq).

Virtamove | Software Developer (C++)

Jan 2020 - Apr 2020

- Individually developed a feature detecting the memory-mapped compiled architecture for Windows binaries, **improving app migration success rates** from various Windows OS.
- Individually developed a file and registry rehosting service migrating between matching OS, working extensively with native Windows API to query services, registries, and binaries.

Amgine | Junior Developer (C#, Python)

May 2019 - Aug 2019

- Researched and prototyped improvements (GRU, ELMo, Attention layers) to an ML model (Keras, Tensorflow), **improving sentiment analysis of emails**.
- Wrote a JSON parser and an email tokenizer to facilitate training data transfer and generation.
- Generated C# classes (T4 text templates) for dynamic JSON parsing.

EDUCATION

University of Waterloo | Bachelor's of Computer Science Candidate

- Major Average: 85%

Expected graduation, May 2023

PROJECTS

Raytracer | C++

- A raytracer demonstrating supersampling anti-aliasing, mirror/glossy reflection and refraction, soft shadows, texture and bump mapping, and Phong illumination. Scene rendering specified with LUA.

Connect - Hack the North | Java, Android Studio

- Service to send/receive NDEF messages using NFC. Prototyped sending images and PDFs as URI.

ML Models | Java, Python

- Perceptron-based neural networks demonstrating **evolutionary** and **back-prop** algorithms.

Snake Pathfinding | Java

- Demonstrates various pathfinding algorithms performing real-time path updates against user input.