

Matthew Ng

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EDUCATION

University of Guelph

Bachelor of Computing, Computer Science, GPA: 4.0/4.0 (90% cumulative)

Guelph, ON, Canada

September 2019 – April 2024

TECHNICAL SKILLS

Languages: Python, C#, Go, JavaScript, C, C++, Java, HTML/CSS, Dart, SQL

Frameworks/Tools: Node.js, React, .NET, Azure, AWS, Google Cloud, MongoDB, JUnit 4, Flask, Flutter

EXPERIENCE

Google

Software Developer Intern

August 2022 – October 2022

Waterloo, ON, Canada

- Back-end development of healthcare data processing tools in Go for the Google Cloud Platform Healthcare API team.
- Improved the efficiency and extensibility of a healthcare protobuf data extraction package through the re-factorization of code and the use of more efficient graph traversal algorithms.
- Created and performed unit-testing on aforementioned packages, achieving over 80% code coverage.

Microsoft

Software Engineer Intern

May 2022 – July 2022

Redmond, WA, United States

- Back-end development of a highly requested upcoming project customization feature for the Microsoft Office Project team using C#.
- Developed and performed extensive integration testing of a .NET RESTful API that automates the storing, retrieval, and creation of custom Microsoft Project files, decreasing custom project creation times by approximately 50%.

Microsoft

Software Engineer Intern

September 2021 – December 2021

Vancouver, BC, Canada

- Back-end development of tools for a message passing mechanism that distributes operations to over 100 Azure servers across the globe using C# for the Microsoft Office Planner team.
- Architected the porting of diagnostic software for use in highly secure environments that previously required manual diagnostic intervention, increasing maintenance efficiency by more than 100%.

Distributive

Software Developer Intern

May 2021 – August 2021

Kingston, ON, Canada

- Full-stack development of software components, libraries, and documentation webpages for a new distributed cloud computing platform called the Distributed Compute Protocol using Node.js.
- Developed features and fixes that significantly improved the reliability, efficiency, and performance of the platform involving connectivity, payments, and security.

University of Guelph

Teaching Assistant

September 2020 – December 2020

Guelph, ON, Canada

- Taught concepts of discrete mathematics such as: logic, set theory, mathematical proofs, and numerical systems to a class of 285 students.

University of Guelph

Research Assistant

May 2020 – August 2020

Guelph, ON, Canada

- Worked with the School of Computer Science and Ontario Veterinary College for a research project funded by the Bill & Melinda Gates Foundation: Global Burden of Animal Disease.
- Developed an API that replaces numerous deprecated NGO agricultural data APIs and a data dashboard using Python, Flask, and Plotly Dash, aiding in securing approximately \$300k in funding for the project in a funding proposal.

PROJECTS

Classic Simpsons Episode Suggester *JavaScript, Node.js, MongoDB*

- Full-stack webapp that recommends golden-era Simpsons episodes with a user rating feature.

Super Duper Compressor *C++*

- Implemented a file compressor in C++ using Huffman Coding.

AWARD & EXTRACURRICULAR

Society of Computing and Information Science

Vice President, Internal.

April 2020 – May 2021

University of Guelph

North America Champion: Public Anthropology Writing Competition

Top paper out of 2500 contestants across 22 universities in North America.

November 2019

Hawaii Pacific University