

MATTHEW NG

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EDUCATION

University of Guelph

Bachelor of Computing, Computer Science (Co-op)

Minor in Mathematics

GPA: 4.0/4.0 (90% cumulative)

Guelph, ON, Canada

2019 - 2023 (expected)

SKILLS

Languages: Java, Python, C, C++, JavaScript, TypeScript, C#, HTML/CSS, Dart, SQL
Frameworks/Tools: Node.js, Express, MongoDB, JUnit 4, Flask, Flutter, BeautifulSoup

EXPERIENCE

Microsoft

Software Engineer Intern

Vancouver, BC

September 2021 - December 2021

- Backend development of internal tools using C# and Azure for the Microsoft Office Projects & Planners team.
- Architecting and developing new diagnostic software for use in highly secure environments that previously required manual diagnostic intervention.

Kings Distributed Systems

Software Developer Intern

Kingston, ON

May 2021 - August 2021

- Backend development of software components and libraries for a new distributed cloud computing platform called the Distributed Compute Protocol using Node.js.
- Implemented a distributed computing payment system that accurately delegates funds commensurate with compute power used in order to facilitate paid compute jobs.

School of Computer Science - University of Guelph

Teaching Assistant

Guelph, ON

September 2020 - December 2020

- Taught concepts of discrete mathematics such as: logic, set theory, mathematical proofs, circuits, and numerical systems.
- Facilitated labs, marking assignments, and answering student questions in a class of 285 students.

University of Guelph

Research Assistant

Guelph, ON

May 2020 - August 2020

- 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 stores agricultural data using Python and Flask to replace deprecated third party APIs and created a web dashboard to present data findings hosted using AWS EC2.
- Aided in securing approximately \$300k in funding for the project through the inclusion of the dashboard and API in a funding proposal.

PROJECTS

GPS Trail Parser C, JavaScript, Node.js, MySQL

Full stack CRUD app that parses and stores GPS data from XML files to create and read hiking trails with a C backend. Implemented a hiking trail database using MySQL with login functionality.

Classic Simpsons Episode Suggester JavaScript, Node.js, MongoDB

Used Node.js, Express, and MongoDB to develop a full-stack webapp and a REST API that recommends and stores information about golden-era Simpsons episodes with a user rating feature.

AWARDS & EXTRACURRICULAR

Society of Computing and Information Science

Vice President, Internal.

University of Guelph

April 2020 - May 2021

Sir Isaac Newton Physics Contest School Champion

School champion and ranked in the 88th percentile for Canada.

University of Waterloo

May 2019

North America Champion: Public Anthropology Writing

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

Hawaii Pacific University

November 2019