

MATTHEW SZURKOWSKI

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Technical Skills

Languages: C/C++, Python, JavaScript, Java, Bash, Lua, Perl, R, SQL, HTML/CSS, Ruby, Gosu

Tools: Figma, Miro, Jira, Bitbucket, Github, Jenkins, AWS, GCP, Azure

Technologies: NodeJS, Express, Microsoft .NET, Flask, React, FastAPI, Git, Bootstrap, Docker, PostgreSQL, MySQL

Experience

Co-operators

May 2023 – Present

Junior Developer

Guelph, ON

- Collaborated with cross-functional teams to complete assigned tickets related to software development using tools such as **Jira, Bitbucket, and Jenkins**.
- Analyzed and debugged issues within **Guidewire ClaimCenter** using **Gosu** to ensure seamless functionality and enhance user experience.
- Conducted thorough testing to verify the accuracy and reliability of developed functionalities.

Global Burden of Animal Diseases

January 2022 – April 2023

Software Developer

Guelph, ON

- Developed and deployed globally accessed websites, reaching **thousands of users** worldwide and offering impactful insights into animal health.
- Utilized **machine learning** techniques to design a high-performance search engine for Global Burden of Animal Diseases (GBADs) data, achieving a **76%** reduction in query response time and greatly enhancing user efficiency and research outcomes.
- Developed a web application and **CRUD API** using **DocuSaurus, React, Flask, AWS EC2, and Nginx** to allow developers and researchers to create documentation for GBADs.
- Reduced overall build time by **35%** after implementing **CI/CD** workflows with GitHub actions.

Iona Systems Ltd.

June 2022 – February 2023

Software Developer

Oakville, ON

- Architected **RESTful API** server using **FastAPI** for permanent file storage on the Arweave **blockchain**.
- Stored information on each **API** call to a **PostgreSQL** database.
- Created unit tests and applied linting to code base with **GitHub CI/CD**.

University of Guelph - Department of Integrative Biology

July 2022 – September 2022

Software Developer

Guelph, ON

- Reviewed, revised, and improved overall **React** website used by **1000+** students per semester.
- Implemented **Flask** server, **GitHub** actions, and **Docker** to create a simple **CI/CD** pipeline.
- Improved overall documentation over several repositories.

Projects

ESW QR Prize Validation System | *React, FastAPI, AWS DynamoDB S3 and ECS, Git/Github*

April 2023

- Developed a Python-based QR code system via **FastAPI**, allowing users to request unique codes for Engineers for a Sustainable World club's minigame fundraiser.
- Integrated **AWS DynamoDB** to validate codes, award scores, and store user information.
- Hosted the application on **AWS ECS** for optimal scalability and performance.

Algo Trading | *Python, Pandas, matplotlib, yfinance, Numpy, FMP API*

August 2021 - September 2021

- Created and plotted simple moving averages, Fibonacci retracements, and other comparisons using yahoo finance data, Python, and Python libraries.

Education

University of Guelph

September 2019 – April 2023

Bachelor of Computing, Software Engineering (Honours)

Guelph, ON

Extracurriculars

- Guelph Student Investment Council - Participating Analyst
- Microsoft Learn Student Ambassador
- Google Developer Student Clubs - Technical Associate
- Society of Computing and Information Science (SOCIS)
- Engineers for a Sustainable World (ESW) - Technical VP