Sebestien Palmerio

sl3palme@uwaterloo.com | sebestien.com | github.com/sebpalmerio | linkedin.com/in/sebestien

Education

University of Waterloo
2018 - Dec 2023 (Expected)

Candidate for Bachelors of Mathematics in Computational Mathematics
3.61 MAV

- Majoring in Honours Computational Mathematics - Co-op with a Computing Minor
- Relevant Coursework: Computer Systems, Algorithms, Data Structures, Logic and Computation, Object-Oriented Programming, Databases, Computational Mathematics

Technical Skills

Languages Python, C/C++, C#, Bash, LaTeX
Frameworks/Tools .NET, Ansible, Azure, Docker, Drone, ELK Stack, Git, Jupyter, Kafka, Linux
Databases MinIO, NoSQL, SQLite

Work Experience

Undergraduate Research Assistant - Embedded Software Group
May 2022 - Aug 2022

University of Waterloo (under Professor Sebastian Fischmeister)
Waterloo, ON

- Continuing engineering efforts for cybersecurity projects spanning the Royal Canadian Air Force, Canadian/US infantry vehicles, the maritime industry, waste water treatment plants, and more (in association with Palitronica Inc.)

Software Engineer
Sept 2021 - Apr 2022

Palitronica Inc.
Waterloo, ON

Developed critical infrastructure for early-stage cybersecurity start-up funded by Y Combinator and the DND, including:

- A scalable back-end of microservices using .NET Web APIs, completely automating Azure deployments and NoSQL database operations for municipalities across Ontario
- An Ansible playbook to automate the provisioning of Azure IoT Edge devices, reducing deployment time by up to 90%
- A standalone .NET IoT Device simulator, used for QA testing of Azure IoT Edge modules from the comfort of home
- Scripts in Python to iterate through CPU core usage and clean erroneous data in MinIO, improving ML algorithm training
- Logging and CD pipelines for .NET microservices with ELK, Azure Event Hubs, and Drone, saving 20+ hours of QA efforts

University Math Tutor
Since Sept 2021

Self-Employed
Waterloo, ON

- Delivered undergrad math content to UWaterloo students, resulting in around 20% grade improvements on assessments
- Courses taught (with number of students): Algebra (9), Linear Algebra I/II (3) Intro to Optimization (2), Calculus III (1)

Projects

Capital Ships API
Personal Project

A .NET Web API With CRUD Operations and Advanced SQL Queries

- Implemented a .NET Web API using Swagger, interacting with an SQLite database (with its corresponding ER Diagram)

Pysics
Personal Project

A Computational Physics Python Library

- Includes methods of integration and differentiation, root finding, BVPs, and Monte Carlo simulations

MyInterviewer
NewHacks 2020 Project

A Web App Based Interview Preparation Platform for Non-Native English Speakers

- Integrated Google Cloud Text-to-Speech and Speech-to-Text APIs in the back-end with GC Storage buckets using Python

Awards & Activities

2018 University of Waterloo Merit Scholarship Recipient
2017 Banting Memorial High School Orientation Team Leader
— Second Degree Taekwondo Black Belt. 3x Most Dedicated, 1x MVP Hockey Goalie