# Michael Rivnak

#### INFORMATION

#### **CONTACT**

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#### LINKS

mrivnak.github.io linkedin.com/in/michael-rivnak github.com/mrivnak

#### **EDUCATION**

## WENTWORTH INSTITUTE OF TECHNOLOGY

Bachelor of Science in Computer Science Graduated Dec. 2020

#### **COURSEWORK**

#### **UNDERGRADUATE**

Data Structures
Algorithms
Digital Logic
Databases
Operating Systems
Network Programming
Applied Cryptography
Parallel Computing
Software Engineering
Systems Administration

#### **SKILLS**

#### **PROGRAMMING**

**FRAMEWORKS** 

C/C++ Java Javascript Python

### Rust

Django Angular React

#### **TOOLS**

Visual Studio Code JetBrains IDE GNU Debugger

#### **PROFESSIONAL**

Agile/Scrum

#### **EXPERIENCE**

#### **CONTENT SPECIALIST INTERN** | Jones and Bartlett Learning

May 2019 - Aug 2019 | Burlington, MA

- Assembled applications to automate and optimize workflows
- Maintained documentation of applications for end-user understanding
- Designed Application Programming Interfaces (APIs) to facilitate creation of an extensible application suite

#### RESEARCH ASSISTANT | WENTWORTH INSTITUTE OF TECHNOLOGY

Jan 2020 - Apr 2020 | Boston, MA

- Collect relevant information on real-time operating systems and integrate information into a university curriculum
- Perform practical analysis of performance and usability benefits

#### **PROJECTS**

#### ATTENDANCE TRACKER [GROUP] | SOFTWARE ENGINEERING

Sept 2019 - Dec 2019

- Utilized Django web framework to create cross-platform application
- Integrated templates and views to dynamically render application pages
- Adapted web templates to work with Django and specific applications

#### UNDERWATER REMOTE OPERATED VEHICLE (ROV) [GROUP]

IEEE WENTWORTH | SOFTWARE TEAM

Sept 2019 - Present

- Implemented firmware to control ROV motors
- Integrated microcontrollers with high-level Python libraries
- Designed interface to communicate with ROV from control computer

#### GAME BOY EMULATOR [GROUP] | SENIOR PROJECT

May 2020 - Present

- Leveraged existing documentation to create a software emulator for the Nintendo Game Boy CPU
- Implemented register, memory, and state management systems

#### FORUM [GROUP] | WEB DEVELOPMENT

May 2020 - Present

- Utilized Django framework for flexible full-stack development
- Leveraged sqlite database for efficient data storage and organization
- Integrated Bootstrap components for a modern UI

#### **PUBLISHED WORK**

#### REAL-TIME OPERATING SYSTEMS: COURSE DEVELOPMENT

Published in: Springer Nature - Research Book Series: Transactions on Computational Science & Computational Intelligence

• Investigated real-time operating systems and their applicability to a university operating systems course