

# Michael Rivnak

## INFORMATION

### CONTACT

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### LINKS

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## 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

C/C++  
C#  
Java  
JavaScript  
Python  
Rust

### FRAMEWORKS

Django  
Electron

### TOOLS & TECHNICAL

Git Version Control  
Visual Studio Code  
Linux/Unix  
Systems Administration  
Relational Databases  
Embedded Databases

### 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

### RESEARCHER | WENTWORTH INSTITUTE OF TECHNOLOGY

Jan 2020 – Apr 2020 | Boston, MA

- Collected relevant information on real-time operating systems and integrate information into a university curriculum
- Performed practical analysis of performance and usability benefits and detriments
- Demonstrated high-level written communication skills

## PROJECTS

### ATTENDANCE TRACKER [GROUP] | SOFTWARE ENGINEERING

Sept 2019 – Dec 2019 | Python, Django

- 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 | Python, ROS

- 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 – Aug 2020 | C++

- 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 – Aug 2020 | Python, Django

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

### RVPKG-RS | INDEPENDENT

Dec 2020 - Feb 2021 | Rust

- Utilized binary-tree embedded database
- Analyzed product requirements for both ease of development and simplicity of use

## PUBLISHED WORK

### REAL-TIME OPERATING SYSTEMS: COURSE DEVELOPMENT

Published in: Advances in Parallel & Distributed Processing, and Applications (ISBN 978-3-030-69984-0)

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