Michael **Rivnak**

INFORMATION

CONTACT

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LINKS

mrivnak.github.io
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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++
Java
JavaScript
Python
Rust

FRAMEWORKS

Django
Electron

TOOLS&TECHNICAL

Git Version Control
Linux/Unix
Shell Scripting
Systems Administration
Object-Oriented Design

PROFESSIONAL

Agile/Scrum

EXPERIENCE

CONTENT SPECIALIST INTERN | JONES AND BARTLETT LEARNING

May 2019 – Aug 2019 | Burlington, MA

- Assembled applications to automate and optimize workflows
- Integrated applications with REST API endpoints within a content management system
- Designed Application Programming Interfaces (APIs) to facilitate creation of an extensible application suite
- Maintained proper software documentation and distribution to ensure ease of use

RESEARCHER | WENTWORTH INSTITUTE OF TECHNOLOGY

Jan 2020 – Apr 2020 | Boston, MA

- Collected relevant information on the applicability of Real-Time Operating Systems to a collegiate operating systems curriculum
- Analyzed and understood the strengths and weaknesses of using a RTOS over a traditional OS in various circumstances
- Demonstrated high-level written and oral communication skills in a published paper and conference presentation on the topic

PROJECTS

UNDERWATER REMOTE OPERATED VEHICLE (ROV) [GROUP]

IEEE WENTWORTH | SOFTWARE TEAM
Sept 2019 – Present | Python, ROS

- 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++, CMake

- 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 within Jinja templates for incredible flexibility

RVPKG-RS | INDEPENDENT

Dec 2020 – Feb 2021 | Rust

- Utilized binary-tree embedded database for minimal runtime dependencies
- 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 curriculum