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/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
- Integrated applications with REST API endpoints
- 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