Colton Onderwater

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Third-Year Software Systems Engineering student at Curtin University with a background in Video Game Development and a current interest in low-level programming and embedded systems. Seeking an internship to contribute and learn from a professional development team.

Education

Bachelor of Engineering (Software Systems) — *Feb. 2024 - Present*

Curtin University | Perth WA
- Relevant Coursework: C Programming, Digital Design, Software Engineering Principles
- CWA: 66

Bachelor of Interactive Entertainment (Game Design) — *2015*

SAE Qantm | Perth WA

Professional Development

nRF Connect SDK Fundamentals — *2023*

Nordic Semiconductor dev-academy

CS50 - Introduction to Computer Science — *2019*

EDX.org

Certificate IV Training and Assessing — *2019*

South Metropolitan TAFE

Technical Skills

Languages: C, C++, C#, Python, Rust

Tools: Git, Linux developer Environment (Arch), MSP430 and NRF5340 microcontrollers, Unity, UE4

Other Skills

Agile project management, Team Communication Strategies, Documentation

Employment History

Lecturer
Jan 2017 – Dec 2023

South Metropolitan TAFE

- Instructed courses on game design principles, introduction to C#, introduction to Python, project management and industry practices, and emerging technologies such as AWS.
- Developed course content according to standards set by the Department of Education
- Validated course material of other lecturers to ensure organizational standards were met

Lecturer
Feb 2022 – Sep 2022

SAE

- Instructed courses on Introduction to VR/AR design

Lecturer
Jan 2020 – Sep 2023

Mount Pleasant College

- Instructed courses introducing the fundamentals of video game development
- Successfully designed a new course that achieved accreditation

Independent Video Game Developer
2015 - 2022

https://www.coltononderwater.com/games.html

- Developed various solo and small team projects across multiple platforms, including mobile and PC.
- Worked with Unity and Unreal Engine 4 (UE4) for both 2D and 3D applications.
- Took on roles in art, programming, and design, functioning as a developer generalist.

Projects

University

Custom built ALU using QUARTUS II

- Designed a ALU starting with just logic gates and implementing combinational and sequential circuits with hierarchical design
- Tested and simulated ALU with a custom testbench written in Verilog

Personal

Basketball Shot-Tracker with a MSP430

https://www.coltononderwater.com/projects/shot_tracker.html

- Designed and constructed an embedded device for tracking made basketball shots using an ultra-sonic sensor and 14 segment LED display. Custom drivers made for sensor and display using device and timer interrupts and I2C protocol.

Stewart Platform with a NRF5340

https://www.coltononderwater.com/projects/stewart.html

- Designed and constructed a Stewart Platform using a series of servo motors and a nr5340 development board. Implemented behaviours using PWM and Zephyr programming tools