

Dustin Neumann

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Technical Knowledge

Programming Language

C++, C, C#, F#, Python, Javascript, Lua, Java

Operating Systems

- Windows
- Linux (Arch and Debian)

Libraries and Frameworks

NodeJs/Express — Built a web server that communicates with an embedded system, processing and logging data that it receives. It also has an API for viewing and processing the data.

ReactJs — Built a web client for graphing and viewing the data coming from the server

OpenGL — Designed and built multiple 3D graphics renderers, currently I maintain a library called Coral which is a graphics rendering library for the Nim programming language.

IDE and Tools

Vim — user for 6 over years

Visual Studio and VsCode — along with the Windows Compiler Tool-chain

Linux Developer — experience with account management and Linux tooling

Experience

Lead Programmer for a Biological Research Team at Walla Walla University

- Wrote software for an embedded system. The system asynchronously reads from several sensors and using that data it controls the environment of a Bioreactor.
- Developed a web server (using NodeJs and Express), that communicates with the embedded system, logging and processing the data. It also opens up an API for viewing and managing the data.
- Built a web client in ReactJs that uses the servers API to graph the data, it allows the researchers to see if the Bioreactor is functional without having to be in the lab.

Freelance developer

- Helped develop and debug applications written using CoronaSDK and the Java Android runtime.
- Built a rendering engine using OpenGL for a game called Merph In Space

Projects

Bioreactor — Software that powers a cell growing machine.

GCodeGenerator — A collection of python scripts for managing and manipulating G-Code used for Cnc machines. This library also contains a Qt5 application that renders the part in 3d space using OpenGL

Coral — Graphics and windowing framework for the Nim programming language.

Nim-Tiled — Tiled map loader library for the Nim programming language.

SkyVault — A 2D/3D multiplatform adventure game written in C++.

References

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