



website: ejrbuss.net

github: github.com/ejrbuss

email: root@ejrbuss.net

Education

Bachelor of Software Engineering

Sep 2014 – Present

University of Victoria

Victoria, BC

Skills

Programming Languages: C, C++ (11, 17), Objective-C, Python (2.7, 3), Java, Clojure, SQL, PHP, JavaScript, TypeScript, CoffeeScript, Matlab, Lua, HTML, Pug (Jade), CSS, SASS, Less

Libraries: Matplotlib, Numpy, SciPy, TensorFlow, React, Express, JQuery, Boost, AVR Libc, OpenGL, WebGL, CodeIgniter, Mocha, Jest

Databases: MySQL, Oracle-SQL, MongoDB, Redis

OS-Familiarity: Windows, Mac OS, Linux (Ubuntu, openSUSE, Elementary, Fedora)

Tools: Windows Office Suite, Photoshop, Pixelmator Pro, IDEs (Visual Studio, NetBeans, MySQL Workbench etc.), Jira, Jenkins, Git, SVN

Open Source Projects

JavaScript

- Library for checking duck types and other predicates in JavaScript
- Competitive Snake AI written in JavaScript as part of BattleSnake competition
- Team based problem solving at the Microsoft Coding Competition

3D Programming

- CPU based ray tracer with support for Phong and scatter shading
- Rust reimplementation of ray tracer with parallelism
- Procedurally generated planets using OpenGL and simplex noise on the GPU

C Programming

- Simple Lisp with mark and sweep garbage collection
- RTOS with a live trace visualization tool for AVR microprocessors
- Python based build tool for small C programs
- Barebones webserver built with the C socket API
- A reliable datagram protocol built on top of UDP

Web App Programming

- Personal website using React and Nextjs
- SQL schema viewer and backwards engineering tool, supports static analysis of Java code
- Dungeons & Dragons game management tool
- Web application version of the board game Go

Work

Mobile Application Co-op

Ericsson, Kanata Site

Jan 2018 – Aug 2019

Ottawa, MB

Responsibilities

- Developed and maintained an app for the iPad and worked to improve maintainability of legacy software
- Developed requirements for features on a large internationally distributed team
- Assisted and managed other developers in learning web technologies
- Developed a web app prototype using TypeScript, React, and .NET

Software Developer

Engineering Dean's Office, University of Alberta

Sep 2016 – Feb 2017

Edmonton, AB

Responsibilities

- Designed a database schema for room booking software
- Worked on redesigning a database schema for graduate student's financial records
- Developed and maintained software for the Engineering intranet with regards to graduate student's financial records
- Developed software for Engineering intranet back end maintainability and functionality
- Provided software support for Professors and Administrators in the Dean's office

Research Assistant

Department of Mechanical Engineering, University of Alberta

Jan 2016 – May 2016

Edmonton, AB

Responsibilities

- Developed productivity software for a Professor of Mechanical Engineering
- Developed software to help promote open source research
- Developed software for the Mechanical Engineering Intranet with regards to Engineering Accreditation

Interests

When not programming I am a total homebody. There is nothing I love more than being curled on up on the couch with a good book, movie, video game, and a friend to enjoy my time with. I love horror movies, science fiction, and anything science or philosophy related! When out of the house I like to be at the climbing wall or on my bike.

References

Contact Available Upon Request

- Bob Koch
Former Employer – Professor of Mechanical Engineering at the University of Alberta
- Mehran Panahi
Former Employer – Software Engineer at the University of Alberta