

Danny Spencer

Information

- Danny Spencer
- Email: dan.spencer.np@gmail.com
- Portfolio: <http://nukep.github.io/portfolio>
- Blog: <http://nukep.github.io/progblog>

Open source

GitHub: <https://github.com/nukep>

- FamiTracker CX: a chiptune music tracker written in C++ for Linux, port of FamiTracker
- nesemu: a simple NES emulator written in Java for learning purposes
- Battleship: A networked game written in Java as a school assignment
- OpticNav: See below (Client projects)
- various Docker repositories
 - also available at <https://hub.docker.com/u/nukep/>
- rust-cubes-demo: An OpenGL, GLSL demo written in Rust
- Mr. Scroll: Ludum Dare 31, 72-hour game jam entry written in Rust
- rust-sdl2: Rust bindings for SDL2
- libxm-rust: Rust bindings for libxm, a chiptune audio generator
- LlamaDB: A simple SQL database written in Rust

Education

SAIT Polytechnic - <http://www.sait.ca>

- September 2012 – April 2014
- Diploma, Information Technology: Software Development

Employment history

SAIT Polytechnic, SAIT RADLab :: Contracted April 2014 – June 2014

- Junior Software Developer
- Developer for BLUR Hockey project (see below)

Client projects

OpticNav: proof-of-concept AR, multi-user augmented reality maps system

- September 2013 – April 2014
- Student Capstone project
- Client: SAIT RADLab (ARIS), Stephanie Krause
- Helped design the Java EE webapp.
- Wrote Android app using Java-based Android SDK.
 - Targets consumer mobile devices such as the Nexus 5.

- Targets the Recon MOD Live, an Android-based head-mounted display.
- Wrote the device daemon. Serves and listens for devices over ethernet and WiFi.

BLUR Hockey

- April 2014 – June 2014
- Client: BLUR Sports
- Visualize real-time data from hardware skate sensors
- Wrote a real-time data graph using D3
- Created mobile iOS and Android app using PhoneGap

Cloud, virtualization

- Amazon AWS
- Docker
- VirtualBox

Technologies and frameworks

Web development

Server-side

- Apache
- nginx
- Glassfish
- Spring MVC
- node.js + Express

Client-side

- HTML, CSS3, JavaScript
- Bootstrap
- Ember.js

Typical node.js workflow:

- nodeenv
- Grunt taskrunner
- LiveReload
- bower
- Sass
- Jade template engine
- UglifyJS

Programming languages

C, C++

- ANSI C, C99
- C++98, C++11
- gcc, clang, some MSVC
- Strong grasp of undefined behavior, including strict aliasing
- Debugging with gdb
- Building with CMake, SCons and make
- Distributing portable binaries under Windows and Linux

- Libraries
 - Qt
 - zlib
 - libpng
 - SDL
 - OpenGL
 - ALSA

Java

- Web and desktop
- Java 7
- Java EE 7
- Building with Gradle, some Maven

JavaScript

- Web and desktop
- node.js

SQL

- LlamaDB - my own SQL database!
- MySQL
- Oracle SQL
- SQLite
- Database table design, normalization

PHP 5

- Used in conjunction with LAMP stack

Python

- Python 2.7, 3
- Ability to make basic utility scripts

Rust

- Active in the Rust community since November 2014 (pre-1.0)
- Kept up with daily language changes, updated GitHub project repos accordingly
- Wrote OpenGL + SDL2 demos in Rust
- Contributed to idiomatic Rust designs for the de-facto Rust SDL2 wrapper library
- Wrote a game for the Ludum Dare 31 game jam: Mr. Scroll