# **BRENDAN WHITFIELD**

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Rochester, NY, United States

# **EDUCATION**

Rochester Institute of Technology B.S. New Media Interactive Development Minor in Free and Open Source Software 3.74 / 4.00

# LANGUAGES TECHNOLOGIES

 C++
 Git

 Python
 Linux

 C#
 Qt

 Java
 SDL

JavaScript openFra
HTML 5 jQuery
CSS 3 Flask

Backbone.js Node.js PostgreSQL

openFrameworks

# SKILLS

Computer Science

OOP - Searching - Sorting - Hashing

# Mathematics

Fundamental Calculus - Geometric Computation - Computational Kinematics and Dynamics

#### Hardware Prototyping

Fundamental Mechanical and Electrical - Raspberry Pi - Arduino

# **INTERESTS**

Open Source Software - Data Visualization - Reverse Engineering - Laser Show Projection - Building Pipe Organs - Artistic Glass Working

# **PROJECTS**

#### LZR

Laser show graphics library written in C++. Handles animation and hardware I/O on Linux, and can drive laser show projectors via ZeroMQ.

# python-OBD

Python module for accessing real time engine data from a car's OBD-II diagnostics port. Provides an API for sync and async communication with the vehicle.

#### C-Graph

Call graphing utility for C, integrated with GitHub. Written with Node.js and visualized with D3.

# **EXPERIENCE**

**UNICEF Innovation Unit** 

2015 June - August n experimental job

Front & back end web developer for an experimental job matching portal. All work is open source, and was forked from 18F (government software agency). Worked remotely with UNICEF to design and implement a prototype website that allows users to apply for job opportunities.

# SwipeToSpin

2014 June - August

Front & back end web developer for 3D product visualizations. Implemented several UI refits, as well as new interfaces for user management and settings. Developed server applications for continuous content management.

Programming TA 2012 November - February

Teaching assistant for RITs intro to programming course.