

# 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

C++  
Python  
C#  
Java  
JavaScript  
HTML 5  
CSS 3

## TECHNOLOGIES

Git  
Linux  
Qt  
SDL  
openFrameworks  
jQuery  
Flask  
Backbone.js  
Node.js  
PostgreSQL

## 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-OBDD

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

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 RIT's intro to programming course.