# Liam Callanan

30 Bay Road Barrington, Rhode Island 02806 Phone: (401) 347-3248

E-Mail: liam\_callanan@brown.edu

# **OBJECTIVE**

Software engineering/designing position or lead programmer/developer in the field of computer science.

#### **EXPERIENCE**

#### Riperian

#### Summer-Fall 2014, 2015

Led a team of 3 developers to build a comprehensive system used to analyze Bureau of Labor & Statistics Consumer Expenditure data sets (up to and over 500Mb in size) in R. Analysis focused on the development of proprietary consumer products that support retirement and pre-retirement investors. Worked on architectural design, data table development/design, effective and efficient workload managing, analytic routines and business logic, and front end interface design & build using the Shiny UI package and CSS.

Developed dynamic form generator using HTML, CSS, and jQuery along with UI plugins such as jQuery UI and Bootstrap. It can read input data from .csv files and create a form from it. The form provides immediate feedback with dynamic prompts, and takes advantage of Bootstrap to work on both mobile and desktop devices.

#### Innovative Sourcing group

#### Summer 2014

Provided technology support and help build social media pages for the company ISG. Support included software (Mac OS updates/RAM cleaning software) and hardware (installing RAM). Additional work included website modifications using Umbraco and HTML, setting up a Google Drive account for easy cloud storage, and creating a business calendar that automatically synced on multiple computers using both iCloud and Google Calendars.

# **EDUCATION**

## **Brown University**

## 2013-Current

Invited by Professor Andries Van Dam to shadow Brown University students working on a program called Touch Art Gallery. The program is a Microsoft Windows 8 application written primarily in JavaScript and HTML, and it allows users to interact with art pieces normally too large to display in person on a tablet device.

Invited by Professor Andries Van Dam to audit his course, CS15: Intro to Object Oriented Programming. The course outlines the basics of object oriented programming in Java through various projects. Major projects include a cartoon, DoodleJump, Tetris, and a Final Project. Current education is at Brown University.

Completed Brown Courses include:

- CS19: Accelerated Intro To Computer Science
- CS32: Software Engineering
- CS22: Introduction to Discreet Structures and Probability
- CS1971: Topics in 2D Game Engines

**Barrington High School** 

Graduated on Jun 8 2014 Final GPA: 4.12

**Brown University** 

2014-Current

2010-2014

Class of 2018

Current GPA: 4.0

# **SKILLS**

## **Computer Science/ Mathematics**

Has been part of the American Computer Science League (ACSL Senior Division) and its competitions, with knowledge in Boolean Algebra, Assembly Language, LISP, Prefix/Infix/Postfix notation, Bit-String Flicking, binary, and hexadecimal.

Participated in math meets, Rhode Island Math League (RIML), and New England Math League (NEML) competitions. Knowledge includes Algebra I, Algebra II, Pre-calculus, Geometry, and Trigonometry.

Able to code in Java using Eclipse, Textpad, Dr. Java, and other programming tools such as Microsoft Visual Basic. Basic knowledge of Java swing library and GUI in Java. Able to program advanced JavaScript, HTML, and CSS. Able to work with R and Shiny UI, Bootstrap and D3js. Knowledge concerning Intel, Nvidia, AMD hardware and experience with both Mac OS X and Windows XP/7/8. Experience with different video files and their compatibility with different operating systems, applications for editing and converting them, and basic knowledge of audio applications available for Windows versus Macintosh computers. Able to build PCs.

#### **Graphic Design**

Use of Adobe CC suite to create graphics, images, and interfaces, including vector graphics, posters, digital photography, pixel art, and sprite animations.

#### Chinese

2 years of Chinese at Barrington High School; 1.5 years of Chinese at Brown University

#### Sports/Athletics

9 years training in Okinawan Goju-Ryu Karate (Brown Belt), 8 years indoor and outdoor training and competition in soccer (Barrington Youth Soccer Association and John Tomlinson Soccer Academy), 3 years of tennis at Barrington Middle School. Other sports include kickball, dodge ball, hockey, Ultimate Frisbee, and basketball.

# **AWARDS**

## AP Scholar Award

In recognition of exemplary college-level achievement on Advanced Placement Program Examinations. Award presented by the College Board.

#### University of Rochester Xerox Award for Innovation and Information Technology

Presented in recognition of outstanding achievement in the pursuit of innovative approaches and an appreciation for the possibilities of technology

# Rochester Institute of Technology Computing Medal Award

Presented in recognition of outstanding achievement in computing

# Society of Women Engineers New England Shoreline Section Certificate of Achievement

Awarded for excellence in mathematics and the natural sciences

# University of Rhode Island Chemistry Contest Division II Joseph W. Ince Award

3<sup>rd</sup> place in Chemistry Division II Contest

# Fitchburg State University Programming Contest Award

2nd Place Team in 2012, 1st Place Team in 2013