

Frederick Brunn

(631) 346-7239 | frederick.brunn@stonybrook.edu | <https://github.com/clotifoth>

Education

B.S. in Computer Science – Expected May 2017 – Stony Brook University – Stony Brook, NY

Experience

Software Engineer Internship – May 2015 through August 2015 – Bren-Tronics, Inc. – Commack, NY

- *Developed C# application that monitors ARM-enabled battery chargers via JSON over UDP and visualizes data in novel ways with OxyPlot library*
- *Developed C# application to test home energy system using SCPI*
- *Debugged UART communication to 3G cellular module using Atmel C*

Robotics Specialist Internship – June 2014 through August 2014 – SonAER Ultrasonics – Farmingdale, NY

- *Developed electronics and modified firmware solution for use in an ultrasonic atomizer nozzle 3D printer*
- *Researched solutions through networking with professionals in the medical equipment field, including attendance at the MD&M East 2014 industry conference*

Relevant Coursework

Front-End / Project Manager – Software Engineering – CSE 308

- *Developed a Node / Express / SCSS / Pug / Firebase web application deployed at <https://canary-life.firebaseio.com/> consisting of a game implemented using HTML5 Canvas, campaign, level creator, message board and wikia as part of a team of four*
- *Organized team using Agile-based workflow, Trello board and feature-branch based Git hosted on Bitbucket*

Back-End – Principles of Database Systems – CSE 305

- *As a team of three, created a social network web application using the JSP / MySQL / Apache Tomcat stack*
- *Learned relational algebra, relational query optimization*

Front-End / Application – Computer Science III – CSE 219

- *Developed a JavaFX program to simulate seasons of fantasy baseball using JSON player data and styled with custom CSS*
- *Implemented style and design patterns and interfaces in the context of long-term software development*

Education – Research in Computer Science – CSE 487

- *Collaborated with faculty to develop coursework for Computer Science I and III*
- *Developed final project, to be implemented in JavaFX*

Extracurricular Experience

Project Manager / Webmaster – September 2014 through December 2016 – IEEE Stony Brook Chapter – Stony Brook, NY

- *Maintained the IEEE website based on Wordpress*
- *Managed IEEE-run projects through the running of weekly project hours and the foundation and administration of an official chapter GitHub account*
- *Integrated search engine optimization into all pages*
- *Participated in weekly executive board meetings, planning events to promote engineering and chapter projects, such as basic and advanced Arduino tutorials*

Selected Project Contributions

RedditScraper

- *C# program that uses HTML Agility Pack to scrape the main content and comments into local HTML files*
- *Developed from the ground up to learn about sending HTML protocol requests programmatically*

wallpaper-reddit

- *Python program; scans JSON headers of posts from the user-supplied subreddits, then chooses an image among them to be resized and set as the desktop wallpaper*
- *Vital program functionality fixes and configuration fixes*

Skills

- *Node.js, Express, SCSS, Pug/Jade, Firebase, Grunt*
- *JSP, MySQL, Apache Tomcat*
- *JavaFX, C#, WPF*
- *PHP, Python*
- *Trello, Git, GNU/Linux*