

# Frederick Brunn

(631) 346-7239 | [frederick.brunn@gmail.com](mailto:frederick.brunn@gmail.com) | [clotifoth.github.io](https://clotifoth.github.io)

## Education

B.S., Computer Science – Stony Brook University – Stony Brook, NY - 2017

## Experience

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

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

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

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

## Projects

Canary Life

- *Develop a Node / Express / SCSS / Pug / Firebase web application deployed at <https://canary-life.firebaseio.com/> consisting of an HTML5 Canvas game, campaign, level creator, message board and wikia as part of a team of four*

RedditScraper

- *C# program that uses HTML Agility Pack to scrape the main content and comments into local HTML files*

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, Blender*

## Coursework

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

- *Develop and deploy a scalable hybrid web application with focus on marketability and UX*
- *Organized team using Agile-based workflow, Trello board and feature-branch based Git hosted on Bitbucket*

Front-End – Internet Programming – CSE 336

- *Develop JSP / Angular / ajax web applications in the context of e-commerce applications*

Back-End – Principles of Database Systems – CSE 305

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

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

- *Develop a JavaFX program to simulate seasons of fantasy baseball using JSON data and CSS3 stylesheets*
- *Implement style and design patterns and interfaces in the context of long-term software development*

3D Modelling – Introduction to Multimedia – CSE 334

- *Produce a short 3D-animated film in Blender with custom models, textures, shaders, materials and animation*

Education – Research in Computer Science – CSE 487

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

## Extracurricular

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

- *Maintain the IEEE website based on Wordpress*
- *Manage IEEE-run projects through the running of weekly project hours and the foundation and administration of an official chapter GitHub account*
- *Integrate search engine optimization into all pages*