

# Frederick Brunn

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<https://github.com/clotifoth>

## Selected Project Contributions

### 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*

### 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*

## Relevant Coursework

### Principles of Database Systems – CSE 305

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

### Computer Science III – CSE 219

- *For the final project, 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*

### Research in Computer Science – CSE 487

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

## Education

### Stony Brook University – Stony Brook, NY

*B.S. in Computer Science at Stony Brook University*

*Expected Graduation: 2017*

## Skills

Java	Python	HTML / CSS
JavaFX	LaTeX	Bootstrap
C#	SML	SQL
HTML Agility Pack	R	JavaScript
Oxyplot	Git	PHP
WPF	bash	

## 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*
- *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*

## Extracurricular Experience

Project Manager – started September 2014, ongoing

IEEE Stony Brook Chapter – Stony Brook University, Stony Brook, NY

- *Managed IEEE-run projects through the running of weekly project hours and the foundation and administration of an official chapter Github account*
- *Projects include a tic-tac-toe touchscreen game and various Raspberry Pi-based services*
- *Participated in weekly executive board meetings, planning events to promote engineering and chapter projects, such as basic and advanced Arduino tutorials*