

# JAKE ZAIA

@jakezaia00@gmail.com

(917)-941-6422

Rochester, NY

jake-zaia

jzaia18



## EXPERIENCE

### Software Engineer

#### Herrick Technology Laboratories

May 2020 — December 2020 Germantown, MD

- Writes firmware to interface with various sensors over UART and I<sup>2</sup>C.
- Programs FreeRTOS systems on a Nios II soft core.
- Created a framework for transmitting via the redhawk software defined radio framework.
- Wrote backend software supporting direction finding capabilities of a software defined radio.

### Computer Science Tutor

#### Wyzant Inc.

May 2019 — Present Online

- Teaches various math and computer science topics to high school, college, and adult students.
- Manages schedules of clients located across multiple time zones.

### Summer Intern for Mainframe Security

#### Morgan Stanley

July 2018 — August 2018 New York, NY

- Implemented an internal website to resolve mainframe issues.
- Created a front end interface and worked to maintain a good user experience.
- Worked with Proids (bots) on RACF and TSS mainframes to query for basic user information.

## VOLUNTEER WORK

### Teacher's Assistant

#### Stuyvesant High School

January 2017 — June 2018 New York, NY

- Taught students various computer science topics.
- Ensured students were well behaved and focused on relevant tasks.

### Sensei (Tutoring Center Manager)

#### Stuyvesant CS Dojo

September 2016 — June 2018 New York, NY

- Taught students various computer science topics.
- Managed students to ensure that all personnel were being employed efficiently.
- Established a safe and open atmosphere for collaboration and team-work.
- Performed various hardware and software repairs.

## LANGUAGES

Python	● ● ● ● ●
C	● ● ● ● ●
Java	● ● ● ● ●
JavaScript	● ● ● ● ●
C++	● ● ● ● ●
C#	● ● ● ● ●
Assembly (MIPS/Arm)	● ● ● ● ●
Ruby	● ● ● ● ●

## TECHNICAL SKILLS

HTML + CSS	● ● ● ● ●
Python Flask	● ● ● ● ●
Linux Systems	● ● ● ● ●
Bootstrap/Materialize	● ● ● ● ●
EMACS	● ● ● ● ●
Bash Scripting	● ● ● ● ●
MongoDB	● ● ● ● ●
Digital Electronics	● ● ● ● ●
Systems Administration	● ● ● ● ●
Regex	● ● ● ● ●
Qt	● ● ● ● ●
LaTeX	● ● ● ● ●
MATLAB	● ● ● ● ●
Protobuf	● ● ● ● ●
SQL	● ● ● ● ●

## Volunteer Tutor

### Computer Science and Technology for Urban Youth

📅 September 2016 — June 2018 📍 New York, NY

- Taught Java, Processing-Java, and basic computing concepts.
- Enticed an audience using demonstrable projects.
- Managed students and ensured order in a classroom.

## PROJECTS

### Corundum Graphics Engine

#### Ruby, Python

📅 January 2018 — June 2018

A fully functional graphics engine built in Ruby that supports loading .obj files, and animations. Lighting utilizes the Phong reflection model, and the graphics commands are handled by a customized language with its own lexer and parser.

### The Internet of Things

#### Python, JavaScript, HTML5, GCP

📅 October 2019 📍 Hack Upstate XIV

A fully deployed social networking web application that has users discussing, comparing, and rating places and things anonymously. Uses Google Cloud Platform utilities to automatically parse image data for starting conversations.

### The Safety Gauntlet

#### Python, JavaScript, MongoDB, Arduino

📅 September 2019 📍 BigRed//Hacks

Wearable hardware that puts important environmental and safety information in the hands of first responders and the people who need it the most. The Arduino wearable communicates through Bluetooth LE to a centralized server for data aggregation.

### Tamagogo

#### Python, JavaScript, HTML5, MongoDB

📅 February 2019 📍 BrickHack V

A deployed web-based game about helping your community become a better place, both environmentally and socially. Users are rewarded for doing good deeds with virtual creatures.

### Grov

#### C#, MonoGame

📅 January 2019 — May 2019

A 3rd person shooter/exploration game that has players exploring a procedurally generated enchanted forest. Features variable weapons, powerups, and enemies.

### Tapout

#### Python, JavaScript, HTML5, Firebase

📅 June 2018 📍 StuyHacks VI

A web-based rhythm game in the style of Jackbox Games that has players tapping out songs for one another to guess for points.

### Jammi

#### Python, JavaScript, HTML5, Firebase

📅 May 2018 — June 2018

A web app that allows multiple users to view a youtube video together, synchronized in real-time while having a comfortable chat via a chat room.

## AWARDS

**Winner: IBM Code & Response Challenge**  
Cusehacks 2020

**Best Use of Wolfram|Alpha API**  
HackRPI 2019

**Most Useless Hack**  
DandyHacks 2019

**Best Use of MongoDB**  
BigRed//Hacks 2019

**Best Game**  
StuyHacks 2018

**Golden Ducky Award**  
Stuyvesant High School (2018)

## ACTIVITIES

**RIT Linux User's Group**  
Secretary

**StuyHacks**  
Mentor

**RITSec**  
Member

**CodeRIT**  
Member

**Rockstar Esolang**  
Rockstar Developer

**Stuyvesant CS Dojo Website**  
Web Developer

**Cyberstuy**  
Workshop Captain

**Dungeons & Dragons**  
Player & DM

**FRC Robotics**  
Software Engineer

## EDUCATION

B.S. Computer Science  
**Rochester Institute of Technology**

📅 Aug 2018 — May 2023 (Expected)

GPA: 3.93 (4.0 in-major)

**Stuyvesant High School**

📅 Sept 2014 — June 2018

GPA: 3.7