

## Education

### Brown University

09/16 - 05/20 (expected)

- B.S. Computer Science
- Departmental GPA: 4.0/4.0 | Overall GPA: 3.84/4.00

#### Relevant Coursework:

- Artificial Intelligence
- 3D Game Engines
- Data & Computational Science (Master's)
- Computer Systems
- Software Engineering
- Creating Modern Web Apps
- Linear Algebra
- Multivariable Calculus
- Algorithms | Data Structures

## Experience

### Software Engineering Intern @ **AlBrain, Inc.**

06/18 - 08/18

- Built a Semantic Clustering module for the *Memory Graph* product using Keras, TensorFlow, and Apache Spark. Used the module to trigger self-reorganization of memory stored in an acyclic graph.
- Implemented the skip-thoughts model in Keras to produce accurate sentence embeddings. Improved categorical accuracy by 15% and reduced memory usage by over 10% for the *Memory Graph* product.
- Improved upon the Unity *fAutonomy* demo by adding a marketplace-driven economy. Trained intelligent NPC's with planning and neural networks to create a lifestyle simulation using the C++ API.

### Undergraduate Teaching Assistant @ **CS1410**

05/18 - 12/18

- UTA for CS1410: Artificial Intelligence sponsored by Brown's Department of Computer Science.
- Held weekly hours to help students with concepts and debugging, graded assignments & exams.
- Updated assignments by adding I/O testing functionality, visualization, and solution code.

### Software Developer @ **Salomon Laboratory**

06/17 - 09/17

- Wrote R and Python scripts to parse and perform ANOVA analysis on mass spectrometry data which computed normalized heatmaps for phosphoproteomics experiments.
- Implemented Andromeda and MaxQuant in the automated pipeline to improve sequencing depth. Used R's Parallel library to remove bottlenecks in quantitation caused by the new, richer data types.
- Worked with the Peptide Depot relational database to create a GUI for the lab's statistical tools.

### Web Developer @ **AnyMeal, Inc.**

07/13 - 01/14

- Designed a web portal using Node.js for restaurant owners to upload and customize their menu's appearance. Experimented with Node Webkit to create a desktop version of this portal.
- Built a web scraper with text parsing in Python to streamline the menu uploading process. Reduced the average time required for customer onboarding by 30% with automated menu parsing/uploading.

## Projects

### Facey – The First True Dating App

05/18 - Present

- A dating app that aims to foster and build real, long-term relationships between users by enforcing video chatting as the only form of communication and limiting the number of total matches at a time.
- Features: built-in video chats, Google/Facebook account linking, and smart user matching based on preferences (with a bonus algorithm using Brown University student specific information)

Technology: Node.js, React, Redux, MongoDB, WebRTC

### Stuff Going Down – Personalized Global News

03/18 - 05/18

- A world map which updates with live news and social media pins. Content is fully customizable as upvoting content increases the chances of similar content being displayed. Worked on a team of 2
- Features: multiple user support, search, grouping densely pinned areas with clusters, displaying heatmaps based on sentiment, dynamic zoom, and upvoting & downvoting.

Technology: Java, Spark, JavaScript, HTML/CSS, D3.js, websockets, Google Maps API

### XAMulator – Secure Testing Portal

06/15 - 12/15

- An education tool designed to replace paper tests through creating and taking tests online.
- Program consisting of a web portal for teachers to upload/create tests and a desktop client for students to take tests on and view results. Locks the screen during test-taking to prevent cheating.

Technology: Node.js, node-webkit, JavaScript, MySQL, Passport

## Awards

- 2nd Place - Jane Street ETC 2018, 2<sup>nd</sup> Team All Region (NE) - USA College Ultimate 2018, Distinguished Honor Roll (Top 1%) - AMC12 2014

## Skills

- Java, Python, C, C++, JavaScript, R, SQL, Git, Node.js, React.js, Keras

## Activities

- Brown University Club Ultimate Frisbee, Guitar, Cello, Calligraphy