

# Brian Pak

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## EDUCATION

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**Georgia Institute of Technology** | Atlanta, GA

Expected Graduation: May 2024

*B.S – Computer Science, Concentrations: Intelligence & Media*

*GPA: 3.12*

**Coursework:** Data Structures & Algorithms (Java & C++), Information Visualization, Object-Oriented Programming, Computer Organization, Automata & Complexity Theory, Combinatorics, Discrete Mathematics

## EXPERIENCE

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**GT WebDev** | Software Developer

*August 2022 - Current*

- Coordinated tasks with the API team in an Agile development process to build a RESTful API for a full-stack, serverless app that guided over 70 Georgia Tech students in exploring new music.
- Designed and implemented Authorization Code flow with the PKCE extension to secure client secrets while performing calls to Spotify API.
- Maintained real-time data of ‘up-votes’ and ‘down-votes’ of certain songs/albums using WebSockets API, supporting ‘multiplayer’ functionality.

**Freelance** | Personal Tutor

*August 2021 - May 2022*

- Prepared personalized lessons in programming fundamentals and object-oriented programming to aid 6 economically-disadvantaged high school students in preparing for advanced standing exams.
- Composed interactive study guides with Notion to assist 3 students at the University of Georgia in studying Automata Theory and Data Structures, helping raise their academic performance by an average of 6%.

## PROJECTS

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**BuzzConnect** | *React, Spring Boot, MySQL, Maven*

*August 2022 - Current*

- Collaborated with four peers to design and develop a full-stack application that assists students in exploring current student events on Georgia Tech’s campus.
- Built a RESTful API using Spring Boot that coordinates information transfer between MySQL database and the React.js frontend.
- Utilized MySQL to establish a relational database that stores user credentials and event information.

**Unix Utilities** | *C*

*June 2021 - August 2021*

- Implemented a collection of 8 Linux/UNIX command-line commands, including head, tail, env, and wc.
- Employed C Standard Library Functions to make system calls to the Linux Kernel, allowing the implementation work directly with the device’s operating system.

**Stranger Things Showdown!** | *C*

*June 2022 - August 2022*

- Programmed a Stranger Things-themed rock, paper, scissors video game for the GameBoy Advance, hosted on an emulator provided through a Docker.
- Encoded graphics for 7 Stranger Things characters and background scenery into the game by manipulating Direct Memory Access functions and implemented game logic using C programming.

## EXTRACURRICULARS

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**The Agency at Georgia Tech** | Member

*January 2022 - May 2022*

- Implemented a deep neural network of three layers in Python that interprets over 10,000 handwritten digits MNIST data to understand fundamental deep learning concepts and basics to ML Libraries.
- Attended lecture meetings to gain awareness about other AI subfields of interest, like Reinforcement Learning, Machine Learning Theory, and Computer Vision.

## SKILLS

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**Languages:** Java, C, C++, JavaScript, HTML/CSS, Python

**Technologies:** Git, React.js, REST API, SST, MySQL