

Brian Kwok

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Software Engineer | New York, NY

Disclaimer: I am a Software engineer with a timeline as twisty as code in a spaghetti factory: bootcamp graduate, layoff detour, degree enthusiast, and unwavering code aficionado.

Skills

JavaScript, Python, C++, React.js, Redux, HTML, CSS, MongoDB, PostgreSQL, Git, AWS, Microsoft Azure App Service, HTML, CSS, Googling, Debugging

Work Experience

- Full Stack Engineer** | *Wayfair - Boston, MA* Jun 2019 - Feb 2020
 - Collaborated within the Identity team to enhance user account customization features.
 - Collaborated with iOS and Android app developers to architect and implement a robust backend infrastructure, ensuring smooth data retrieval for engineers, ultimately accelerating development cycles by streamlining backend interactions.
 - Pioneered seamless integration of WhatsApp messaging services, elevating user experience and fostering a 10% increase in timely notification interactions.
 - Spearheaded the development of a robust PHP backend while leveraging GraphQL and React.js for frontend implementation, resulting in a 12% enhancement in application responsiveness.
- Android Mobile App Development Intern** | *Start English Now - New York, NY* Feb 2019 - May 2019
 - Assisted the lead developer in the development of an Android mobile app using Kotlin and MongoDB.
 - Responded to database issues and implemented solutions to ensure smooth operation.
 - Proactively identified and resolved database issues, showcasing an ability to troubleshoot efficiently and implement effective solutions, which led to a 15% reduction in app crashes and improved overall stability.
 - Actively participated in code reviews, driving code refactoring efforts for enhanced efficiency, and contributed to continuous improvements in coding practices
- Ramp Safety Supervisor** | *Korean Air - New York, NY* Oct 2013 - Dec 2017
 - Demonstrated strong leadership skills by overseeing and coordinating ramp operations to ensure the safety and efficiency of aircraft ground handling.

Projects

- Personal Finance Manager** | *Node.js, Express, React.js, MongoDB, Azure Web Service* [live site](#) | [frontend](#) | [backend](#)
Personal Accountant - Utilize Plaid API to securely connect bank information to the personal finance app
 - Developed a comprehensive personal finance full-stack web application utilizing Node.js, Express, MongoDB, and React with Redux.
 - Integrated the Plaid API to securely connect users' bank information, enabling expense tracking and financial analysis.
 - Hosted the Express server on Azure and deployed the React client on GitHub Pages for seamless user access.
 - Chose to utilize secure cookies over JWT tokens for sessions, balancing stateless authentication with stronger security and data privacy. This streamlined user authentication, improved cross-device use, and reduced token vulnerabilities.
- Neural Network from Scratch** | *JavaScript, Canvas* [live site](#) | [github](#)
Handwritten Digit Recognition - built a neural network from the ground up using JavaScript and the Canvas API
 - Developed a neural network entirely from scratch using JavaScript and the Canvas API, avoiding the use of external machine learning libraries.
 - Implemented a custom algorithm to analyze digits drawn by users on an HTML canvas.
 - Engineered a complete multi-layer perceptron (MLP) neural network, encompassing input, hidden, and output layers, showcasing adept network design skills.
 - Employed meticulous backpropagation and gradient descent techniques to attain exceptional accuracy rates in handwritten digit recognition.
- Tetris** | *React.js, JavaScript, Canvas* **React.js:** [live site](#) | [github](#) | **Canvas:** [live site](#) | [github](#)
Simple game of Tetris - two version of games, one with React.js and the other with plain JavaScript and Canvas API
 - Employed modular design and object-oriented programming to encapsulate game mechanics, UI elements, and animations in distinct classes. Resulted in a structured, reusable, and scalable codebase.
- Maze Solver** | *JavaScript, Canvas* [live site](#) | [github](#)
Maze generator and solver - Interactive maze solver using JavaScript and Canvas API
 - Implemented breadth-first search (BFS), depth-first search (DFS), and A* algorithms for visualizing different pathfinding strategies. Regarding performance, the A* algorithm demonstrated superior results.
 - Showcased strong algorithmic and problem-solving skills in designing efficient maze-solving methods.
 - Employed modular design principles to create an interactive and educational platform that vividly illustrates how distinct algorithms navigate through mazes, combining technical excellence with user engagement for a comprehensive learning experience.

Education

- CUNY Queens College** - BA of Computer Science Spring 2023
- CUNY Queensborough Community College** - AS Liberal Science Fall 2021
- App Academy** - Highly selective web development program with 3% acceptance rate Summer 2018
- St. John's University** - Masters of Science in Pharmaceutical Sciences Fall 2013