# Aaron Bishop

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https://aaronpbishop.github.io

https://github.com/AaronPBishop

## SKILLS AND TECHNOLOGIES

JavaScript, TypeScript, React, Redux, Node.js, Express.js, Three.js, Python, Machine Learning, FastAPI, Flask, WebSockets, SQL, PostgreSQL, MongoDB, Cypher, Neo4j, HTML, CSS, Tailwind, Bootstrap, Docker, Git, OpenAI API, VSCode, Ubuntu, Postman, Figma

## PROFESSIONAL EXPERIENCE

#### **Full Stack Software Engineer**

Mutual, June 2023 - Current

- Spearheaded the design and development of several major company projects, employing React TypeScript components and MVC architecture for efficient frontend state-management, resulting in highly-responsive 2d/3d user interfaces.
- Skillfully designed RESTful API systems, ensuring seamless integration plus efficient real-time data exchange between various microservices, and integrated backend endpoint responses with custom frontend WebSocket configurations.
- Engineered robust CI/CD pipeline solutions, facilitating seamless deployment and scalability of applications across multiple environments, resulting in a 50% reduction in deployment time and improved resource utilization.
- Maintained and executed comprehensive test suites to ensure reliability and performance, minimizing downtime by 25% and reducing bugs in production environments.
- Iteratively tested and improved vector embedding configurations, improving Al-driven responses and overall functionality.
- Built complex graph relationships and optimized queries for data retrieval processes to improve application performance.
- Efficiently investigated large-scale issues and demonstrated agility in refactoring major codebases within a fast-paced startup environment, increasing system efficiency and adaptability to rapidly changing business requirements.

#### **Perishables Specialist**

H-E-B, April 2017 - March 2023

Awarded 'Bob Brandt Customer Service Award' for outstanding customer service.

## **NOTABLE PROJECTS**

#### ThesaRush

https://thesarush.onrender.com | https://github.com/AaronPBishop/ThesaRush

Unique multiplayer word game with various complex game-play mechanics and engaging skill-based rewards. (React, Redux, Flask, SQLAlchemy, ES6 JavaScript, HTML5, CSS3)

- Utilized advanced matrix operations, including recursive generation of random starting boards, manipulation of input selection based on player tile selection, and instant splicing of cleared tiles, resulting in a 60% increase in overall gameplay speed and a highly engaging player experience.
- Deployed a 'challenge' feature which enables users to send and receive challenges from other players within an array of leagues, with customizable time limits and difficulty levels, allowing players to compete and compare results.
- Built a highly effective 'hint' generating feature that utilizes an elegant solution to quickly identify valid 8-9 letter words
  within the player's board, resulting in a significant 75% improvement in algorithmic word-finding speed.
- Designed an advanced I/O tile-generating system that utilizes queue techniques to strategically determine next letters that should be dropped, optimal column placement, and appropriate property inheritance, improving overall efficiency by 80%.

#### Buzz

https://buzz-vxv2.onrender.com | https://github.com/AaronPBishop/Buzz

Full-stack Slack inspired asynchronous messaging application (React, Redux, Flask, SQLAlchemy, HTML5, CSS3)

- Coordinated a team of three developers and leveraged expertise in project management, code reviews, and cross-functional communication to ensure timely completion of project milestones and successful deployment of the application.
- Leveraged global state subscription hooks in order to conditionally dispatch timed backend requests at intervals, creating highly-responsive, asynchronous messaging functionality between users.
- Employed data-driven design principles to build a state-management system that loads messages from the organization or channel currently being viewed, resulting in improved application performance and faster load times of 50%.

## **EDUCATION**

App Academy - Software Engineering Immersive: 48 Week Program - Graduation Date: March 2023 3% admission-rate - 90% deferral rate - Graduated top of class with 0 deferrals on weekly assessments Pair-programmed daily and constructed several full-stack applications using a diverse variety of programming technologies. Lone Star College System - Associate of Arts: Business Administration - Graduation Date: January 2022 Graduated Summa Cum Laude (3.9 GPA)

## ACCOMPLISHMENTS

Certified Eagle Scout