Colin Bakker

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EDUCATION

Texas A&M University December 2025

Bachelor of Science in Computer Science *Current GPA: 4.0/4.0*

Awards: National Merit Scholarship, President's Endowed Scholarship, Engineering Honors
Languages: C++, Python, Java, JavaScript, HTML, CSS, LaTeX, R, SQL, C#
Tools: Git/GitHub, Linux, Visual Studio, VS Code, Vim, PowerBI, React, Azure DevOps, JIRA, .NET MVC

EXPERIENCE

WoofWatch | *Software Developer* November 2024 – Present
- Developed a web app in C# utilizing Microsoft's .NET MVC framework to provide real-time dog collar tracking information to users.
- Implemented user authentication and authorization using Auth0 and implemented cloud hosted database and API service for storing location and user data
- Worked in a collaborative environment within the Azure DevOps ecosystem, utilizing the Agile development methodology and version control.

Texas A&M University | *Peer Teacher* January 2024 – Present
- Assisted hundreds of students enrolled in freshman and sophomore level Computer Science courses during lab and one-on-one office hours, expanding my technical communication skills.
- Strengthened my programming knowledge by teaching C++ and Python language use, error handling, program analysis and design, memory management, and object-oriented design.
- Assisted students in debugging programs, honing skills in identifying and resolving complex software issues using debugging software.

Textron Aviation | *Data Analysis Intern* June 2024 – August 2024
- Collaborated with cross-functional teams to reduce the refresh time of PowerBI Workspaces by over 90%.
- Prepared and presented weekly report-outs to management to communicate my project's progress, gaining experience with technical communication and public speaking.
- Shadowed the E-Commerce department's software development team to gain an understanding of the Agile process and the software development life-cycle.

PROJECTS

Panda Express Point of Sale System | *Java, Python, PSQL, Git, React, Tailwind, Flask* August 2024 - Present
- Utilized Java Swing for building a front-end GUI and PostgreSQL (PSQL) for back-end database management.
- Ported entire system to a web-based interface using React, Flask and Render.
- Followed Model-View-Controller (MVC) architecture to separate concerns and enhance maintainability.
- Implemented the project using the Waterfall and Agile Software Development Methodology.
- Collaborated in a team of five, managing version control with Git and GitHub and project management with JIRA
- Integrated full-stack development principles to handle both front-end user interactions and back-end data processing.

Office Space Worker Distribution | *JavaScript, HTML/CSS, VS Code* October 2023
- Collaborated with a team to develop a full-stack web application to analyze worker preference data and design an ideal office layout, minimizing worker conflict and maximizing available floor space.
- Provided documentation and gave a presentation for judgment as a part of a hackathon competition.
- Planned, programmed, and optimized a program under a 24-hour time constraint, gaining experience working within deadlines and planning software projects.

Graphical Projects | *Python, C++, Java, OpenGL, JavaFX, GitHub* November 2021 - Present
- Created Wordle, Pong, first person 3-D games and other graphical applications using C++, Python and Java programming languages as well as the JavaFX, OpenGL, and raylib libraries.
- Made use of linear algebra concepts and matrix operations to perform transformations on three dimensional vectors to animate and render models on screen.
- Utilized Git/GitHub for version control and documentation.