

360.821.9681
Vancouver, WA
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Marcaus Cruz

Software Engineer

GitHub: Marcaus-Cruz
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Dependable Software Engineer with over four years of experience designing, developing, and deploying scalable web applications and custom game engines. Specializes in JavaScript/TypeScript, Node.js, and AWS integration with a strong foundation in design implementation and cross-platform compatibility. Proven ability to lead frontend initiatives, elevate backend systems, and enhance maintainability across complex codebases. Integrates seamlessly into Agile teams and guarantees to deliver high-impact software.

PROFESSIONAL EXPERIENCE

Software Engineer

May 2022 — March 2025

Exponential Entertainment Inc.

- Collaborated cross-functionally in an AGILE environment to deliver promotional games for MAX, Paramount, FOX, and other top media studios, boosting brand revenue and engagement in 40+ contracts.
- Responsible for monthly updates to Game Rooms deployed on national cable platforms through Comcast, Contour, and Verizon - including design implementation, app configurations, custom feature integrations, build deployments, and end-to-end testing.
- Refactored client/server side codebases (JS, Node.js, Serverless) to enhance maintainability, reduce complexity and duplication, and optimize performance - cutting build/runtime load times and operational costs.
- Built 15 custom game engines for the HollywoodPlayer domain - including Scene Streak (Simon Says-style game using media stills) and Tile Swap (a timed challenge to unscramble TV/movie scenes), resulting in millions of playthroughs and increased user retention.
- Designed and developed an internal admin search tool leveraging image recognition to store, categorize, and retrieve assets by keyword, face, object, or visual similarity using AWS - streamlining content discovery and management.
- Maintained and extended scalable backend systems using AWS, ensuring seamless compatibility across browsers, mobile devices, and custom hardware.
- Engineered reusable Vue components for the Clipology online/board game, supporting its growth to 180,000+ player accounts and widespread party gameplay while maintaining a 4.5 star Amazon rating.

Front End Engineer

January 2021 — December 2021

Department of Computer Science at Western Washington University

Developed the interactive CAAML web tool using JavaScript to visualize machine learning algorithm outputs, significantly enhancing instructor efficiency in class scheduling. As the lead on front-end development, I routed and styled all web pages using HTML, CSS, and JavaScript and designed dynamic D3 visualizations to improve usability and user comprehension. In addition, I simplified project workflows using Trello boards and Agile Scrum practices, ensuring consistent progress and clear alignment with client and team goals.

Research Assistant

October 2020 — December 2021

Department of Computer Science at Western Washington University

Contributed to novel hardware security research by developing and testing Python-based models of Physical Unclonable Functions (PUFs). Defined follow-up testing methodologies based on data-driven insights and technical collaboration with the Head of Research. Scripted machine learning benchmarks to analyze model security and performance. Utilized WandB for result tracking to generate comparative analysis.

SKILLS

Programming Languages	JavaScript, TypeScript, HTML, SASS, CSS, JSX, SQL, Python, Java, C, BrightScript
Libraries & Frameworks	Vue, React, Backbone, Greensock/GSAP, JQuery, Pixi, D3, ChartJS, Lottie, Three, Underscore, Firebase
Other tools/technologies	Git, AWS, Webpack, Vite, Node, GA4, Serverless, NPM, VSCode, Jira, Bitbucket, Figma, LookerStudio, Browserstack, CI/CD, Agile, WordPress, Cordova, Android Studio, Docker
Soft Skills	Dependable, Adaptable, Flexible, Patient, Open-minded, Critical Thinker, Problem Solver, Hard Worker, Interpersonal, Empathetic, Optimistic, Dedicated, Accountable, Proactive

EDUCATION

Bachelor of Science in Computer Science, Western Washington University - Bellingham, WA
White Board Coders club member

December 2021
2018 — 2021

Coursework: Analysis of Algorithms, Computer Security, Computer Systems, Operating Systems, Databases, Data Structures, Functional Programming, Mobile Programming, Networks, Object-Oriented Design, Video Game Development, and Web Development Fundamentals.

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PROGRAMMING PROJECTS

Fruit Force (TypeScript, Vue, Phaser)

April 2025 — Present

- Developing a lightweight tower defense game where fruit characters defend against waves of pests using Phaser.
- Enhancing TypeScript and Vue proficiency while integrating backend support for authentication and persistent game state.

Habitz (Vue, GSAP, Lottie, AWS, Chart.js)

April 2025 — Present

- Building a gamified goal-tracking web app with interactive animations, custom charts, and dynamic Vue components.
- Implementing a REST API utilizing AWS for user stats and commitments, alongside Google Sign-In authentication.

Chicky Sandie Reviews (Java, SQLite, Android Studio)

May 2022 – June 2022

- Developed an Android app to automate the formatting of detailed chicken sandwich reviews, including calculations, media handling, and text generation for social media posts across a variety of platforms.
- Implemented SQLite to store, update, and retrieve post data efficiently within a local SQL database.
- Integrated Java with Android intents and manifest structures to deploy a fully functional app on personal Android devices.

Expansive (React, Firebase, D3)

January 2022

- Developed a responsive expense tracker web app using React, enabling users to manage and visualize their spending habits.
- Integrated a real-time database using Firebase to allow users to sign in and persist expense data across sessions.
- Designed interactive D3 visualizations to provide users with clear insights into their spending patterns, improving financial awareness.