Lucas Arden

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Skills

Languages: Python, JavaScript, Typescript, HTML, CSS, VBA
Frameworks: React.js, Next.js, Node.js, Pytorch, Keras
Tools: Git, Excel, VS Code

Experience

Software Engineer/Online Sales Manager, The Starving Musician – Santa Cruz, CA Aug 2022 – Present

- Developed scripts in VBA for inventory automation across multiple stores, saving hours of manual entry weekly.
- Managed the store's Reverb account, independently increasing online sales by over 200%.
- Wrote PHP scripts to remove unnecessary saved files, reducing server size and costs by 25%.

Intern Software Engineer, Holonis – San Diego, CA May 2020 – Oct 2020

- Developed software using React to expand the administration app for a social media platform.
- Worked with a team of 5 engineers using Git, Agile practices, and code reviews to deliver weekly updates.
- Adapted rapidly to a complex React codebase, contributing production-ready features within one week.

Projects

Portfolio Website – *Next.js, React, Vercel, MongoDB* lucasarden.com

- Built a responsive portfolio website with custom components, RESTful APIs, and a mobile-first design.
- Deployed using Vercel with CI/CD pipeline tied to GitHub commits.
- Used modular CSS and component-based architecture to keep code maintainable and scalable.
- Developed user authentication system with NextAuth and Prisma for account creation and login, stored in MongoDB.

Custom Chessboard – *Python, Pygame* github.com/lucasarden/chessboard

- Developed a functional chessboard with legal move validation, turn-based logic, and check detection.
- Used Pygame event handling to manage drag-and-drop input for intuitive piece movement.
- Currently building game analysis and move tracking features to support performance visualization and AI integration.

Education

University of California, Santa Cruz – BS in Computer Science, GPA: 3.34 Mar 2025

Relevant Coursework

AI & ML	Software Engineering	Theoretical Foundations
● Intro to Machine Learning	● Computer Systems	● Applied Discrete Mathematics
● Artificial Intelligence	● Data Structures & Algorithms	● Computational Models
● Quantum Computing	● Foundations of PL	● Number Theory

Open-Source Contributions

Baritone – *JavaScript* github.com/cabaletta/baritone

- Contributed to a widely used open-source Minecraft pathfinding bot by optimizing mining algorithms and fixing a critical bug in block backfilling logic, improving terrain traversal reliability.
- Code merged into main branch and publicly credited; has 7,000+ GitHub stars, 60+ contributors, and 7M+ downloads.
- Collaborated via GitHub issues and pull requests; followed community coding standards, wrote regression-proof fixes.