Liam Rooney

Full Stack Software Engineer

🏠 roon.dev ⭕ lbrooney in lbrooney ✉ liam@roon.dev 📞 (510)872-2636

Projects

E-COMMERCE PLATFORM NodeJS | NextJS | React | GraphQL | RESTful | PostgreSQL
Jan. - Mar. 2023 | Full Stack Software Engineer
- ➔ Led an Agile team in creating a microservices-based e-commerce platform akin to Facebook Marketplace.
- ➔ End-to-end engineered listing creation, involving automatic flagging for moderation and hiding of posts with inappropriate language, coupled with an intuitive front-end featuring drag-and-drop image uploading.
- ➔ Developed a image microservice, handling image sanitization, conversion to web-friendly formats, and efficient image hosting.
- ➔ Contributed to the development of a moderation and admin platform with robust user management capabilities for curating an inviting platform.

RELATIONAL DATABASE | C++
Apr. - June 2023 | Database Developer
- ➔ Constructed a RDBS from the ground up, featuring storage for integers, floats, and strings, along with support for user-defined schemas.
- ➔ Leverages indexes for rapid record searching, providing users the flexibility to choose specific columns for efficient data retrieval.
- ➔ Implemented scanning and joins for the efficient retrieval of multiple records with capable filtering capabilities.

AUDIO VISUALIZER | C++ | QT6 | OpenGL
Mar. - June 2022 | Software Engineer
- ➔ Led a SCRUM team with bi-daily stand-up meetings, maintained an organized Scrum board, and optimized code collaboration through Git.
- ➔ Developed a streamlined audio visualization system capable of generating either a waveform or dynamic shapes, responsive to the nuances of the song.
- ➔ Utilized WASAPI to construct the audio capture backend and concurrently developed a frontend UI, enabling users to select the audio endpoint for visualization.

PINTOS | C
Jan. - Mar. 2022 | Software Developer
- ➔ Enhanced the OS's sleep functionality by introducing advanced algorithms governing process sleep behavior and determining optimal wake-up times.
- ➔ Implemented both binary and counting semaphores, extending them into conditional variables to facilitate programs concurrently accessing the same file.
- ➔ Developed fundamental syscalls enabling the operating system to execute user programs via the command line with support for optional arguments.

Experience

ORINDA UNION ELEMENTARY SCHOOL DISTRICT | Instructional Assistant
July – September 2022 | Orinda, CA

- ➔ Facilitated technology deployment in classrooms, managing iPads and Chromebooks.
- ➔ Provided technical support to teachers, assisting with instruction and office-related tasks.

Skills

PROGRAMMING

Proficient:
C++ • C • SQL

Experienced:
JavaScript • TypeScript
HTML • CSS

Familiar:
Python • Java • Kotlin
Shell • Assembly • Haskell

LIBRARIES/FRAMEWORKS

React • Next.js • Express.js
Tailwind CSS • Material UI
GraphQL Yoga • Jest
OpenAPI Swagger • Qt

TOOLS/PLATFORMS

Git • Node.js • PostgreSQL
Docker • Linux • FreeBSD
LATEX • GNU Debugger (GDB)

Education

UC SANTA CRUZ
BS in Computer Science
Sep. 2019 - June 2023
Baskin's School of Engineering
GPA: 3.66

Coursework

UNDERGRADUATE

- Full Stack Web Development
- Database Systems & SQL
- Data Structures & Algorithms
- Algorithm Analysis
- Intro to Software Engineering
- Computer Security Design
- Operating Systems Design
- Functional Programming
- Computational Models