# John Dunn | Software Engineer

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## SKILLS

**Strong:** TypeScript, Python, HTML, CSS, React, Next.js, Node.js, Express.js, Mongoose, React Query, Tailwind CSS, JSON Web Tokens, Microsoft SQL Server, PostgreSQL, MongoDB, Github, Jira, Microsoft DevOps, Confluence, Notion, Balsamiq, Lucid

**Experienced:** Bcrypt, MUI, Redux, AWS, Kafka, Docker, DataBricks, Webpack, Rollup, Jest, React Testing Library, CI/CD

## EXPERIENCE

**React Query Rewind**

*Software Engineer* *September 2023 – Present*

- Developed a memory-efficient custom React component in TypeScript and built a long-lived two-way window messaging system to enable real-time data synchronization between our npm package and devtool, allowing developers using the state management tool React Query to time travel state directly in the browser
- Customized third-party libraries and created an SDK to format state data, highlight JSON property changes (additions/updates/removals) between state changes and allow JSON nodes to be expanded/collapsed to streamline the debugging process for developers
- Optimized browser performance and compatibility by configuring Webpack for minification and Rollup for efficient bundling
- Configured testing suite with React Testing Library and Jest, automated testing as part of CI/CD and created unit tests with 80% coverage to ensure functionality is maintained across future iterations
- Enforced a consistent environment across development and production by aligning dependencies for a seamless workflow

**R1 RCM,** San Francisco, CA

*Senior Group Product Manager* *September 2022 – September 2023*

- Oversaw 3 Product Managers and collaborated with 4 engineering teams to evolve CloudmedAI into a scalable platform that enabled multiple solution teams to efficiently build on top of the system, resulting in improved development velocity
- Built complex models in DataBricks using Spark SQL & Python to identify and resolve both payer and provider data discrepancies
- Deployed an 835 remittance standardization system that increased analysts' efficiency in overturning denied claims by 34% and reduced new client onboarding time by 18%

**Cloudmed (acquired by R1 RCM),** San Francisco, CA

*Product Manager* *January 2021 - September 2022*

- Led team of 9 engineers to build automated workflow system that queues and filters claims based on the latest claim data and user configurations, increasing revenue by 209%
- Transformed the Rule Engine to allow internal teams to create more complicated and targeted rules in Spark SQL, resulting in a $107M revenue increase

**Triage Consulting Group (acquired by Cloudmed),** San Francisco, CA

*Software Engineer* *September 2018 – January 2021*

- Owned Triage's Contract Engine that prices 10M hospital accounts per month, identifies contractual underpayments for 150 clients and consists of 80 tables and 130 stored procedures across 2 schemas
- Designed claims pricing algorithms and optimized SQL performance through comprehensive query tuning and indexing reviews, resulting in reduced runtime and minimized server strain
- Architected and programmed a version management system that improved traceability of claims' expected reimbursements, streamlined the resolution of underpaid claims, promoted data integrity, and decoupled systems to reduce SQL deadlocks by 12%

## PROJECTS

**Super Market Sorter**

- Utilized Express to efficiently handle concurrent HTTP requests via MVC formats to authenticate users, use third-party APIs, and make CRUD updates in the MongoDB database
- Programmed secure user authentication using Bcrypt for password hashing and JSON Web Tokens for session management, ensuring robust security and seamless persistence across sessions and multiple devices
- Containerized application with Docker, deployed with AWS Elastic Beanstalk, and configured EC2 Load Balancer for HTTPS redirection

**Open Forge**

- Hackathon Challenge Winner at DevPost's DeveloperWeek 2024, the nation's largest challenge-driven hackathon
- Implemented serverless functions in Next.js to handle user requests and generated dynamic routes, enhancing application scalability

## EDUCATION

**University of California Santa Barbara (UCSB)** *June 2018*

- 3.87 GPA, High Honors, Dean's Honors Scholar

**Scrum Alliance** *July 2021*

- Certified Scrum Product Owner

## Interests

- Skiing, mountain biking, chess, cooking