

# Jea Hyun Lee

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## SKILLS

**Frontend:** TypeScript, JavaScript (ES6+), React, Next.js, Redux, React Router, Tailwind CSS, HTML5/CSS3, Tanstack  
**Backend/Database:** Node.js, Express, REST APIs, PostgreSQL, MongoDB, OAuth2, JWT, Audit  
**Testing/DevOps/Process:** AWS (EC2, ECR, ECS, RDS), Docker, CI/CD (GitHub Actions), Jest, React Testing Library, Agile, Scrum, Jira

## EXPERIENCE

**Software Engineer (Open Source)** May 2024 - Present  
Ditto (Os Labs) | New York, NY

- Architected a Node.js/Express schema migration execution engine processing versioned SQL scripts with PostgreSQL audit logging, enabling traceable database deployments with error handling
- Led the optimization of a React SPA with route-level code splitting using React.lazy and Suspense, improving initial load performance and achieving a 92% Lighthouse score
- Containerized client and server with Docker and orchestrated deployment to AWS ECS via ECR, with RDS PostgreSQL backend supporting the versioned migration system
- Implemented bcrypt/JWT authentication with GitHub OAuth 2.0 and token validation middleware, securing API endpoints with role-based access control for Owner, Admin, and User permissions
- Established Jest, React Testing Library, and Supertest testing suite with unit, integration, and snapshot tests, achieving 82% code coverage across authentication and migration workflows

**Software Engineer** Jan 2023 - Oct 2023  
University Spine Center | Wayne, NJ

- Led the automation of research data prep with Streamlit, reducing per-study prep from 40 to 30 minutes (~25%), saving 10+ hours per month across 60+ studies
- Developed a Python data visualization dashboard, utilizing Pandas for data manipulation and Matplotlib and Seaborn for visualizations, displaying key research metrics for physicians and residents

## PROJECTS

**GameBook** | Browse IGDB titles, save favorites, and manage a personal library to reduce game choice overload  
[GameBook GitHub](#)

- Integrated the IGDB API via an Express server-side proxy to keep credentials server-only and normalize game data for the user
- Exposed REST endpoints for favorites and user libraries, persisting records in MongoDB via Mongoose to enable a personal library that rehydrates on login

**Meet With Friends** | Find mutual free time by selecting weekly slots and viewing group overlap  
[Meet With Friends GitHub](#)

- Authenticated users with Google OAuth 2.0 via Passport and express-session to reduce signup friction and maintain session state for group scheduling
- Designed a PostgreSQL schema for users, groups, and schedules and exposed REST endpoints that aggregate availability with SQL to return a compact overlap JSON payload the client renders in one screen

## EDUCATION

Codesmith, Advanced Software Engineer Immersive 2024  
Rutgers Graduate School of Biomedical Sciences, M.B.S. 2021  
Binghamton University, B.A. in Biology 2018

## TALKS & PUBLICATIONS

CI/CD Technical Talk - Scismic 2024  
[Open Source Medium Article](#) 2024