

John O'Brien

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SKILLS

- **Technologies:** JavaScript, Typescript, Node.js, Express.js, PostgreSQL, MongoDB, React.js, Redux, Tailwind CSS, HTML, CSS, APIs, JWT Authentication, Auth0, Git, GitHub, Jest, Vitest
- **Languages:** Spanish (Professional Proficiency)

PROJECTS

Esque [Live Site](#) | [Github Repository](#)

- Developed project management application with React/TypeScript and Node.js/Express, enabling teams to organize tasks by priority or status with drag-and-drop functionality and role-based permissions
- Implemented robust security with Auth0 authentication, data encryption, and optimistic locking with version control to prevent data loss during concurrent multi-user editing
- Architected PostgreSQL database with Prisma ORM using composite indexes for fast queries, implementing secure email-based invitations with automatic expiration and role-based permissions controlling project access
- Deployed full application stack to production with CI/CD pipelines running automated unit and integration tests, using Netlify (frontend), Render (backend with auto-deploy on merge), and Neon (PostgreSQL database)

Chord Builder [Live Site](#) | [Github Repository](#)

- Built a full-stack web application enabling guitarists to create and manage custom chord sheet diagrams, implementing React frontend with Express backend, Auth0 authentication, and PostgreSQL database for user data persistence with responsive design optimized for desktop and mobile
- Implemented advanced chord visualization featuring configurable grid layouts (4x4 to 8x8), support for 6-string/4-string instruments with 6-fret/12-fret diagrams, multiple notation symbols (root notes, triangles, squares, x-marks), and dynamic PDF export with sanitized custom filenames

You Can Learn the Notes [Live Site](#) | [Github Repository](#)

- Built a music education platform for guitarists with React and TypeScript, with different modules that teach the user how music theory applies to the guitar using interactive guitar diagrams and sound clips.
- Programmed ear training and music theory quizzes that allow the user to select possible question criteria to test what they've learned, receive feedback on wrong answers, and calculate a final score.

WORK EXPERIENCE

John O'Brien Music

Jan 2020 – Present

Music Teacher

Bethlehem, PA

- Provide music instruction for students of all ages, all over the world. Since 2020, most lessons are given online.

Cobrizo Geología Ambiental

Feb 2022 – Sept 2022

International Business Support Analyst

Santiago, Chile

- Directed communication with English-speaking clients and provided interpretation and document translation.

Sunburst School of Music

Jan 2015 – Jan 2020

Music Teacher and Program Developer

Pittsburgh, PA

- Taught individual and group lessons. Developed Rock Band program and instrument rental and repair program.

John Page Classic Guitars

Nov 2017 – Jan 2020

Music Coordinator

Pittsburgh, PA

- Coordinated with the CEO and marketing team to organize live-streamed music events promoting new models

EDUCATION

University of Pittsburgh

Pittsburgh, PA

B.A. Economics, Philosophy, Jazz Studies

2015