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## EXPERIENCE

**TrampleZone** *North Reading, MA* — Software Engineer, Frontend/Backend

MAY 2019 - FEB 2024

- Worked closely with the founder of the company in planning and developing a mobile & desktop application.
- Created all necessary model classes on the frontend with a TDD approach using the Jasmine framework.
- Designed and implemented responsive UI components that worked across mobile & desktop.
- Trained multiple new hires so they could contribute to the project.
- Created promotional content and app store materials using Adobe Premiere & Figma.
- Attended weekly SCRUM stand-ups to report on progress or barriers.

## PROJECTS

**Single Sign-On** *login.bnav.dev*

2025

- Developed a custom OpenID Connect (OIDC) identity provider to centralize and secure authentication across multiple personal applications.
- Researched and implemented core OAuth 2.0 and OIDC specifications—including RFCs 6749, 6750, and 9700—to correctly handle authorization flows, PKCE, and token management.
- Evaluated multiple authentication libraries and frameworks before selecting and integrating better-auth, streamlining development and ensuring robust, standards-compliant security.

**Nextjs Todo Application** *todo.bnav.dev*

2025

- Engineered a full-stack todo application with Next.js, featuring public and private projects and tasks.
- Integrated a custom Single Sign-On (SSO) solution to manage secure user authentication and accounts.
- Implemented CRUD operations initially with raw SQL, then migrated the data layer to Prisma ORM to enhance code maintainability and type safety.

**Duolingo Anki Flashcards** *Personal Project*

2025

- Developed user and Python scripts to extract Chinese vocabulary from Duolingo and automatically generate Anki flashcards featuring English translations, Hanzi, Pinyin, and audio.
- Ensured compliance with Duolingo's Terms of Service by avoiding web scraping of copyrighted assets and integrating external text-to-speech (TTS) services for audio.
- Engineered a Python script to output a formatted CSV file for seamless bulk import into Anki, streamlining the flashcard creation process.

**Portfolio Site** *bnav.dev & js.bnav.dev*

2025

- Began as a vanilla HTML/JS/CSS project implemented following the practices I used at TrampleZone.
- Re-implemented using Nextjs/React/Typescript/TailwindCSS
- Served as a practical comparison of how the basic building blocks of the web have evolved to more modern framework-based development.

**TTB Application** *Worcester Polytechnic Institute*

JAN - FEB 2019

- Worked in a team of ten to develop an application for the TTB database using Agile/SCRUM methodologies
- Coordinated the artifacts created by the project: project documentation, requirements documentation, models, user documentation, training materials, and software code documentation
- Responsible for designing and programming UI and controllers

## SKILLS

**Languages:** JS, CSS, Java, SQL, Python, Typescript  
**Applications:** Figma, Adobe Premier, VSCode, Eclipse  
**Frameworks/Packages:** React, Git, Nextjs, TailwindCSS

## EDUCATION

Worcester Polytechnic Institute — Worcester, MA  
*Bachelor of Science in Computer Science*  
AUG 2016 - MAY 2020 — GPA: 3.25