

# Kurt Gray

Software Engineer

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I'm a highly motivated developer eager to implement clean, readable, efficient, and maintainable code for frontend, backend, or full stack projects. MERN stack skills are my forte, though I'm adaptable to other areas of front end or back end development. I'm an established professional who is also an eager learner. It's my goal to provide value immediately upon learning about my role, in order to make better products for my team and company, and contribute as soon as possible.

## Skills

**Technical:** Javascript, TypeScript, HTML, CSS, SASS, React, Next.js, GraphQL, REST APIs, SQL, MongoDB, Node.js, Express, AWS Services, Terraform, Heroku, Git, Agile Methodologies, Web Audio, UI/UX, Figma

**Soft:** Effective and Clear Communication, Aptitude for Collaboration, Growth-Mindset, Innovative Problem-Solving, Leadership, Accountability

## Projects

**Personal Website with Blog** - A MERN stack multi-user blogging platform. *React, React Query, Node.js, Express, MongoDB,*

- Developed a multi-user platform that allows users to create and manage blog posts and their comments. Admin privileges are available to manage all content.
- Architected back end schema and implemented a REST API using Node, Express, and MongoDB.
- Implemented JWT auth and Google OAuth2 via Passport to allow users to create their own accounts or login with their Google accounts.
- Includes rich text editing using TinyMCE, image upload, upvote, downvote, like, edit, delete posts and comments, publish and unpublish posts, and a full admin interface.

**Beat Boss** - A programmable metronome app for musical practice applications. *React, Web Audio API, Tone.js*

- Using the Web Audio API and Tone.js library, implemented a metronome for standard and programmable time-keeping functions.
- Implemented an effective state management system using React Hooks to meet the complex needs of interacting with real-time audio.
- Metronome features multiple sound libraries with 35 customizable sounds for beat subdivision with individual and master gain controls. Implemented visual component synced with audio.
- Programmable mode features user-customizable segments of tempo, time signature, iteration count, sounds, and gain levels. These programs are serialized to JSON for local storage and sharing.
- Modeled after the widely used "Dr. Beat" electronic metronome, with improved programming capabilities and user interface. Features in progress include program sharing, tempo transitions, and a 'cut-time' mode for advancing ensembles.

**Pantry** (*in development*) - A full-stack recipe and pantry management app. *React, Next.js, Prisma, Postgres, Vercel*

- Leveraged OpenAI API to suggest recipes based on a user's stored ingredients and preferences.
- Designed app to perform CRUD operations, like, and comment on recipes enhancing user engagement and interaction.
- Implemented JWT auth and Google OAuth2 to provide secure authorization and allow users to create their own accounts or login with their Google accounts.

**And more** - *Event Scheduling App, Weather App, Shopping Cart, Memory Game*

## Work Experience

**Instrumental Music Director, Moorpark Unified School District** 2009-2023

- Designed and implemented State Standard aligned curricula in the area of band and string instruments.
- Advised for 5 years on MUSD District Arts Council, influencing district budgets, policies, staff development.
- Directed, evaluated, and coordinated an instructional staff of seven instrumental specialists.
- Led a parent support organization with a \$50,000 annual budget.

## Education

**Sam Houston State University** - Master of Music, Instrumental Conducting

**California State University, Northridge** - Teaching Credential, Secondary Education

**University of California, Los Angeles** - Bachelor of Arts, Music Education