Kep Kaeppeler

Full Stack Software Engineer | Creative Technologist

kep@astralwavelength.dev | linkedIn.com/in/kep-kaeppeler | github.com/Keparoo
astralwavelength.dev | Cape Cod, MA

PROFESSIONAL SUMMARY

Full Stack Engineer and former Musical Director leveraging a unique *Human-in-the-Loop* methodology that combines decades of systems experience with cutting-edge Agentic AI workflows (Gemini, Google Antigravity, etc.) I bridge the gap between creative vision and technical execution, applying the same rigor used to orchestrate Broadway scores to architecting high-performance web systems and automated Python pipelines. Passionate about engineering growth through AI-augmented development cycles that accelerate delivery without sacrificing architectural integrity.

TECHNICAL SKILLS

Languages: JavaScript (ES6+), TypeScript, Python, PHP, HTML5, CSS3, SQL

Frontend: React, Redux, Astro, Next.js, Tailwind CSS, jQuery, Bootstrap

Backend: Node.js, Express, PostgreSQL, Flask, Jinja2, Firebase, Firestore, RESTful APIs

AI-Augmented Workflow: Gemini CLI, Google Antigravity, LLM Context Prompt Engineering, AI-Assisted Code Review & Refactoring

Tools: Git/GitHub, Docker, Docker Compose, VSCode, Figma, Affinity Suite, Adobe Suite, Alembic, Linux/WSL2, Pytest, Unittest, Jest

PROFESSIONAL EXPERIENCE

Astral Wavelength Studio (formerly WebToSmart)   Cape Cod, MA
Founder & Lead Software Engineer   *2010–Present*

- Re-branded freelance consultancy into a specialized development studio focused on E-Commerce Engineering and Workflow automation.
- Pioneered an AI-augmented development life cycle, utilizing agentic tools (Gemini/Antigravity) to accelerate code generation and unit testing while maintaining strict human oversight on system architecture and security.
- Architecting high-performance, edge-optimized web applications using Astro and React, migrating clients from legacy builders to custom JAMstack architectures for improved SEO and Core Web Vitals.
- Developing custom Python CLI tools to automate complex client business logic, file management, and social media scheduling APIs.

Code for Boston   Boston, MA (Remote)
Full Stack Developer   *July 2022–Sept 2024*

- Contributed to the Massachusetts Platform for Legislative Engagement (MAPLE), a responsive app tracking legislation and voting records to empower constituent advocacy.
- Implemented front-end features using React, TypeScript, and Next.js, ensuring full accessibility (WCAG) compliance.
- Collaborated in an Agile environment using GitHub and ZenHub, conducting code reviews and pair programming to maintain code quality across a distributed volunteer team.
- Integrated Firebase/Firestore and Google Cloud Functions to handle real-time data updates for legislative tracking.

KEY PROJECTS

Astral Wavelength Shop | Astro, React, Printify API, Etsy API Live

- Architected a custom Print-on-Demand pipeline integrating Etsy and Printify APIs to automate order fulfillment for a *Science First* apparel brand.
- Engineered a custom domain routing solution to bridge external marketplaces with the brand's primary domain.
- Leveraged AI-driven analytics to optimize social media traffic flow to the storefront.

Plexit | Python, Regex, TMDB API, Compiled CLI, Comprehensive Pytest Suite

- Developed a compiled cross-platform CLI tool (Linux/Windows) to automate the standardization of large-scale media libraries for Plex Media Server compliance.
- Implemented robust regex pattern matching to parse non-standard filenames, integrating with The Movie Database (TMDB) API to fetch metadata and inject correct episode titles.
- Built logic to detect and rename associated subtitle files alongside video assets, moving verified files to production directories while auditing for missing episodes.

Social Media Automation | Python, Social APIs, AI Generation Internal Tool

- Developed a suite of Python scripts and deployed cloud-based Docker containers to automate content scheduling and posting to TikTok, Instagram, Facebook, YouTube, Bluesky, X, Threads, Mastodon, LinkedIn, Pinterest, and Tumblr via their respective APIs.
- Built a *write once, deploy everywhere* system that formats assets for distinct platforms, reducing manual labor by 80%.
- Integrated Generative AI APIs to create context-aware captions and hashtags dynamically based on visual content.

Tapntable | **React, Redux, PostgreSQL, Jest Test Suite**

- Web-based restaurant point-of-sale system (POS) creating an application for servers, bartenders, and managers to run restaurant operations.
- Functions include orders, time clock, inventory, checks, payments, end-of-day reconciliation, sales reports, and database management.

Tuttitracks | **Python, Flask, RESTful API, PostgreSQL, OAuth, UnitTest Suite**

- Web app leveraging the *Spotify* API to search for and save song tracks and audio information available via the Spotify API but not the standard published app including tempo, time signature, and key.
- A user can create, edit, manage, and sort playlists that may be synchronized with the user's Spotify account.

SPECIALIZED AI & MACHINE LEARNING EDUCATION

Deep Learning Specialization	**DeepLearning.AI, Stanford Online**
Certificate (Grade: 100%)	*January 2020−April 2020*

- Comprehensive 5-course specialization covering Neural Networks, Convolutional Neural Networks (CNNs), Sequence Models, and Hyper-parameter Tuning.
- Mastered the theoretical foundations of Deep Learning, including optimization algorithms and structuring ML projects.

Machine Learning Certificate	**Stanford Online**
Certificate (Grade: 100%)	*2019*

- Studied under Andrew Ng, covering Supervised Learning (Parametric/Non-parametric algorithms, SVMs, Kernels and Unsupervised Learning (Clustering, Dimensionality Reduction).
- Applied algorithms to case studies in computer vision, text understanding, and database mining.

CORE EDUCATION

Springboard	**Remote**
Software Engineering Fellow	*2021−2022*

- 700+ hour intensive boot camp covering Data Structures, Algorithms, React, Redux, Python, HTML, CSS, and testing.
- Completed 4 in-depth portfolio projects under 1:1 mentor-ship.
- Developed responsive web applications using JavaScript ES6+, DOM manipulation, AJAX, jQuery, and event-driven programming.
- Built scalable back-end systems using Python and Flask framework with SQL/PostgreSQL databases for data persistence.
- Designed and deployed full-stack capstone projects integrating Python/Flask back-end APIs with JavaScript front-end applications.

Udacity	**Remote**
Full Stack Web Developer Nanodegree	*March 2021−July 2021*

- Designed and developed database-backed APIs and web applications using Python, Flask, and PostgreSQL with SQLAlchemy ORM.
- Built RESTful APIs with comprehensive documentation, test coverage using Python unittest, and integration with React applications.
- Implemented secure authentication and authorization systems using JWT tokens and Auth0 for role-based access control.
- Deployed containerized Flask applications to cloud environments using Docker.
- Completed capstone project combining full-stack development, API design, authentication, and cloud deployment to Heroku

University of New Hampshire	**Durham, NH**
Computer Science & Music Coursework	*Completed 130 credits*

- Dual focus in Computer Science and Piano, Music Theory, Conducting, and Performance.

LEADERSHIP & CREATIVE MANAGEMENT

Musical Director / Conductor	**National Tours and Various Regional Productions**
Creative Lead for over 200 productions and 17 national tours	*1990−2010*

Synthesis & Architecture: Translated complex musical scores (technical requirements) into actionable direction for orchestras and cast members, ensuring precise synchronization under high-pressure live conditions.

Programming: Designed and implemented the keyboard programming for hundreds of productions using diverse state-of-the-art equipment.

Team Management: Led cross-functional teams of 20-50+ musicians and performers, managing diverse skill sets to achieve a unified creative vision from casting, rehearsal, technical implementation, and performance runs of hundreds of shows.

Real-time Problem Solving: Managed live performance logistics, adapting instantly to technical malfunctions or personnel changes to ensure show continuity.