

# Andrew Carrigan, Software Engineer

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## LINKS

[LinkedIn](#), [GitHub](#)

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## SUMMARY

I am a skilled software developer with experience in driving innovation and achieving success in fast-paced startup environments. I have exceptional problem-solving skills and expertise in working with diverse data structures. I thrive on continuous learning and have been involved in all phases of software development, from ideation to deployment. My ability to quickly adapt and deliver results underlines my confidence and competence.

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## SKILLS

TypeScript, JavaScript, PHP, Python, MySQL, NginX, CI/CD, Git, Jira, Confluence, Restful API, React, Next.js, Livewire, CSS, HTML, Tailwind, Material UI, Redux, Gatsby, Preact, React Native, Laravel, MariaDB, PostgreSQL, OpenAI, LangChain, FastAPI, Polaris, Shopify, MongoDB, Node.js, Express, JQuery, RestfulAPI, Postman, Insomnia, Vercel, Forge, Digital Ocean, Docker, AlpineJS, SaSS, LeSS, Responsive Design, Figma, Linux, RemixJS, Vue.js, PineconeDB, AWS, Redis, Shopify, Wordpress, MariaDB,

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## EMPLOYMENT HISTORY

Feb 2023 — Present

### CTO, Ripemetrics

San Diego

- Led design and implementation of NextJS/FastAPI system to interact with various AI systems and facilitate streaming responses
- Led the design and implementation of mass data storage to more performant and compartmentalized shards in line with specific use cases
- Lead migration of Front End from Laravel Livewire to NextJS utilizing RTK toolkit and typescript
- Take the CEO's raw ideas and be able to convert them into scalable features implemented in the existing system
- Extensive experience in prompt engineering LLMs for speed and efficiency
- Architect and implement React Native for the mobile version of the platform
- Led product from concept to production with initial onboarding of first 50 customers
- Led implementation of Twilio SDK to implement real-time communication channels over voice and text
- Led implementation of SendGrid SDK to facilitate marketing email server
- Crafted internal library to customize AI. toolchain implementation using Pinecone vector DB in conjunction with open API
- Architected and led the implementation of testing using pest (php backend) and jest (Nextjs frontend)
- Writing Scripting in MySQL to utilize native relational capabilities to provide quick and efficient filtering and retrieval of large data sets while maintaining multi-tenancy
- Lead DB architecture and implementation using Laravel ORM with MySQL and MariaDB databases
- Implemented movement from a query-based system to utilizing real-time communication channels with PusherJS and usage of WebSockets
- Manage cross-team development using Atlassian Jira
- Manage multiple repositories using Atlassian Bit Bucket
- Managed organizational documentation using Atlassian Confluence
- Implemented FastAPI python microservice system to utilize up-to-date AI tools
- Implemented caching system using Redis to achieve a 98% caching of restful API data to increase UI load time by over 200%
- Architected and led development on a React Native mobile app for cross-platform development of mobile application version
- Architected and implemented PineconeDB vector databases to store document embeddings while maintaining multi-tenancy between users
- Led architecture and implementation of a real-time web-based call center in the browser
- Utilized ElevenLabs voice synthesis LLM in conjunction with Twilio to construct a robust and elegant IVR system

Aug 2020 — Feb 2023

### Founding Engineer, Ripemetrics

San Diego

- Worked closely with founders and early team members on product specifications based on customer feedback and internal vision
- Recruited and mentored additional early-stage engineering hires to expand team capabilities
- Migration of legacy services implemented in PHP/Laravel system to Python /FastAPI system
- Balanced speed of delivery and technical debt while allowing flexibility for pivots based on market testing

- Established best practices for agile software development and DevOps within a pre-funding bootstrapped environment
- Designed and implemented core platform and APIs to enable rapid iteration as the product and business model evolved
- Built a reactive single-page web app with React using NextJs and Redux for state management and hooks for great UI/UX
- Integrated OpenAI's NLP APIs to enable conversational interactions and context-aware conversations
- Leveraged Twilio for multi-channel communications including SMS and emails using SendGrid
- Led a major modernization initiative to transition from legacy monolithic PHP application to modularized RESTful Laravel API-based architecture following OpenAPI specifications
- Extensive work data engineering and providing reusable and traits for calculating and formatting raw data from various API integrations
- Utilized Highcharts charting system to construct over 40+ robust ad custom charts for presenting large data sets

Mar 2021 — Aug 2022

## Full Stack Engineering Instructor, MIT Emiritus Full Stack Development Course

Remote

- Developed curriculum and taught core subjects in a 300+ hour online bootcamp program: Python, Typescript/Node, React, Mongo DB, and REST APIs
- Mentored a section of 15 students, planning lessons, providing 1:1 support, reviewing code, and giving feedback on projects
- Customized teaching approach for individual student pacing and needs, driving a 90% graduation rate in my cohort section
- Created interactive lectures, demos, and coding challenges preparing students with the latest skills for roles as full-stack developers
- Provided industry perspective on emerging web frameworks, libraries and best practices to incorporate into curriculum
- Developed detailed student feedback reports and participation analytics to continuously improve program quality

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## EDUCATION

Mar 2020 — Aug 2020

### Full Stack Developer Certificate, NuCamp Coding Bootcamp

San Diego

Intensive 12 week course focusing on full stack JavaScript development utilizing the MERN stack and React Native.

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## COURSES

Nov 2020 — Nov 2020

### Redux Fundamentals (feat. React), Front End Masters

Nov 2020 — Nov 2020

### Complete Intro to React, v6, Front End Masters

Feb 2021 — Feb 2021

### Introduction to Next.js, v2, Front End Masters

Mar 2021 — Apr 2021

### Build a Blockchain & Cryptocurrency | Full-Stack Edition, Udemy

May 2022 — Jul 2022

### Gatsby JS & Shopify: Gatsby ecommerce sites [Gatsby 2022], Udemy

Nov 2021 — Jan 2022

### Complete Intro to Computer Science, Front End Masters

May 2021 — Aug 2021

### React Native, v2, Front End Masters

Jun 2021 — Jul 2021

### CSS Grid & Flexbox for Responsive Layouts, v2, Front End Masters

May 2021 — May 2021

### Object-Oriented Principles in PHP, Laracasts