



PETER LIU

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OBJECTIVE

Full-stack software engineer with 10+ years of experience shipping production systems across Ruby on Rails, Python, PHP/Laravel, and modern JS (React, Vue, Angular). Recent focus on AI/LLM integration — built and deployed both user-facing RAG chatbots and internal autonomous agents using Claude, Qwen, and Autogen. Comfortable as a tech lead and individual contributor; have built greenfield systems from scratch, owned infrastructure, and mentored engineers.

EXPERIENCE

CalMHSA (California Mental Health Services Authority)

Software Engineer | September 2021 – Current

- Solo building app.capeercertification.org - California's statewide peer-supporter certification platform serving tens of thousands of users across public registration, exam workflows, and certification issuance, plus an internal admin dashboard for program staff.
- Architected the system on Laravel + Vue + Auth0 + Jenkins, with infrastructure spun up in Docker and CI/CD pipelines for safe deploys.
- Shipped a Claude-powered RAG chatbot that answers user questions about the peer-certification process - eligibility rules, application steps, exam policies - grounded in CalMHSA's program documentation. Reduced repetitive support tickets from end users.
- Built an internal Autogen-based agent for PDF data extraction - extracts structured fields from submitted certification paperwork (applications, transcripts, attestations) so staff stop hand-transcribing forms.

Simpocloud Inc.

Co-Founder | January 2021 – 2023

- Built a SaaS point-of-sale platform from zero on **Ruby on Rails**, used by independent retail merchants.
- Designed and assembled a custom **LTE-enabled receipt printer** using Raspberry Pi + barcode scanner + thermal printer — controlled directly from the web app via WebUSB / Web Bluetooth, bypassing the need for a desktop POS terminal.
- Owned the full product surface: backend, frontend, hardware, deployment.

ASC Therapeutics Inc. – (Spin off from Applied Stemcell Inc.)

IT Systems Manager | September 2020 – September 2021

- Sole IT for the spin-off: managed 5 servers and all research workstations for the gene-editing research team.
- Customized an ERP system in **Python** for the company's gene-editing workflow tracking.
- Replaced commercial SaaS tools with self-hosted open-source equivalents (Docker-based) — saved the company **thousands of dollars per year** in subscription costs.

Applied StemCell Inc.

Web Application Developer II | July 2018 – September 2020

- Maintained and extended a **Ruby on Rails** internal scientific platform supporting bench scientists.
- Built a gene visualization and reporting tool using D3.js + Ensembl API.
- Deployed a customer-facing React.JS portal with real-time updates via ActionCable.

- Programmed **Opentrons OT-2 liquid-handling robots** in Python to automate SOPs for the wet-lab team.
- Spun up scalable Python data-science environments on internal infrastructure.

WOW88 Strategies

Web Developer / Financial Analyst | January 2018 – July 2018 | April 2020 - 2022

- Created trading strategies and indicators using C# with Visual Studio for Multicharts and Ninjatrade
- Upgrade current Wordpress website to full stack python Django application

Madsen, Kneppers & Associates

Web Developer I | August 2015 – January 2018

- Upgraded a forensic-engineering case-management front-end from prototype.js to Bootstrap and introduced Angular.JS.
- Built REST APIs on a custom PHP framework maintained by senior engineers.
- Built interactive analytics dashboards using **D3.js, Crossfilter, and DC.js**.
- Front-end test automation with PhantomJS / CasperJS.

SKILLS

- **Languages:** Python, Ruby, JavaScript, TypeScript, PHP, C#, SQL **Backend / Frameworks:** Ruby on Rails, Laravel, Django, FastAPI, Node.js **Frontend:** React, Vue, Angular, D3.js, Crossfilter **AI / LLM:** Claude API, OpenAI, self-hosted LLMs, Autogen, RAG, agentic workflows, tool calling, pgvector embeddings **Infrastructure:** Docker, Jenkins, Auth0, AWS, Linux, Raspberry Pi / embedded **Data / Analytics:** PostgreSQL, MySQL, SQLite, D3.js dashboards, ETL pipelines

EDUCATION & CERTIFICATIONS

- Peralta Districts - Laney College 2010 – 2012 transfer
- California State University of East Bay, BS in Computer Science 2012-2014
- Coding Dojo, 3 Full Stacks black belt - March 2015 – June 2015
- Additional Udemy Courses certificates: Modern React and Redux, Advanced React and Redux, Docker and Kubernetes, Complete Digital Marketing Courses, Machine Learning, Data Science and Deep Learning in Python, Secured Certified PHP Developer