

Matthew R. Hanlon

Areas of Specialization

Full Stack Development • Typescript • React • Node.js • Ruby on Rails • PostgreSQL • AWS

Work Experience

- 2022-present Principal Software Engineer, Zitti, Inc.
Architected and built a back office software platform for the restaurant industry, enabling smart ordering decisions using AI-powered pricing intelligence and easy management and payment of vendor invoices
- Led development of a AI chatbot to allow users to interact with order history and vendor pricing data to quickly and easily discover the best pricing and how to save the most money on their ordering. The chatbot utilized retrieval-augmented generation (RAG) and OpenAI's GPT-4
 - Built a unique ordering solution with a universal order guide, real-time pricing data, and AI insights to help restaurants make informed ordering decisions, as well as review past order performance to discover missed savings opportunities
 - Architected a flexible vendor payments solution utilizing multiple payment rails (Balance, Dwolla) to help restaurants easily manage and pay vendor invoices
- 2019-2022 Lead Software Engineer, SchoolAdmin/Finalsite
Full stack development of SaaS application for K-12 schools managing admissions, enrollment, and tuition.
- Led efforts to implement Stripe Connect as a white-labeled payments provider, lowering costs for customers while increasing revenue opportunities for the company
 - Managed rebranding effort that included upgrading and unifying UI frameworks across the application and re-implementing legacy javascript and Angular.js features in React
 - Led upgrade efforts to move from standalone Solr deployment in AWS EC2 to SolrCloud deployed to AWS Elastic Kubernetes Service (EKS)
- 2016-2019 Principal Software Engineer, Oracle Social Cloud, Oracle, Inc.
Developed high-concurrency, multi-tenant cloud applications to process and analyze millions of B2C interactions daily.
- Built integrations with products across the platform resulting in enhanced customer experiences and increased revenue opportunities for the product
 - Profiled applications to identify performance issues; developed solutions to optimize code, caching, database utilization, and API calls, reducing cache misses and API calls by 50% and eliminating N+1 database queries
 - Dockerized development environment to reduce developer ramp-up and more closely replicate production during the development phase
- 2013-2016 Manager, Web & Mobile Applications, Texas Advanced Computing Center
Managed a group of eight full-time developers. Led development efforts for \$20M+ in scientific and cloud computing research grants. Mentored graduate and undergraduate interns.
- Used Agile development principles to manage development of web, iOS, and Android applications
 - Implemented configuration management, CI/CD, and software testing best practices
 - Advocated for development standards across projects to improve code reusability and increase developer productivity
 - Presented work at conferences and meetings across the United States and overseas
- 2010-2013 Research Engineer Scientist Associate, Texas Advanced Computing Center
Developed web applications to support researchers using high-performance computing resources.
- Developed APIs and services for monitoring activity and performance of supercomputing resources
 - Proposed, designed, and deployed a data warehouse for analyzing usage patterns across thousands of projects, tens of thousands of users and tens of millions of jobs run on HPC systems
 - Presented work at conferences and meetings across the United States and overseas

Education

MS in Computer Science, The University of South Alabama, Mobile, Alabama

BS in Mathematics, Spring Hill College, Mobile, Alabama

HONORS, & AWARDS

Outstanding Master's Thesis, University of South Alabama

Outstanding Graduate Student, University of South Alabama

CIS Graduate Fellowship, University of South Alabama

Presidents Honors in Mathematics, Spring Hill College

Hutchinson Award, Philosophy, Spring Hill College