

Jesse Barrueta

(619) 922-6758 | jesse@enormousbrain.com

Professional Summary

Senior software engineer with over 20 years of experience, specializing in the hands-on development and tactical execution of AI/ML solutions. Expertise in building and integrating intelligent web applications using cloud-based LLM APIs from OpenAI, Anthropic, and Google, as well as local LLM APIs from Meta and the open source community, implementing chatbots, smart search, and scalable React-based systems. Proven ability to shape LLM behavior through prompt engineering and fine-tuning, design robust APIs, and implement GenAI safety best practices. Strong background in leading AI initiatives from concept to deployment across multiple products.

Core Competencies

- **AI/ML Technologies:** LLM Integration & Development (OpenAI, AWS Bedrock, Anthropic, Mistral models), Prompt Engineering, Guardrail Development, Fine-tuning Pipelines, API Implementation, Python ML Libraries, GenAI Safety Best Practices (Hallucination Mitigation, Secure Model Usage), GenAI Agents, LLM Meshes
- **Web Development:** ReactJS, TypeScript, NodeJS, FastAPI, GraphQL
- **Architecture:** Microservices, Scalable API Design, System Integration, Enterprise AI Solution Scaling
- **UI/UX:** Component Libraries, Design Systems, Accessibility
- **Best Practices:** Test-Driven Development (TDD), CI/CD, Performance Optimization, AI Application Testing (Unit, Integration, UI), Agile
- **Communication:** Technical Documentation, Diagrams, Demos, Cross-functional Collaboration

Professional Experience

Senior Software Engineer

Apple (September 2022 — Present)

- Owned and drove tactical execution of AI initiatives across multiple products, leading the hands-on development and integration of AI solutions using LLM APIs (e.g., OpenAI, Google, Anthropic).
- Engineered and shaped LLM behavior through advanced prompt engineering, guardrail development, and the implementation of fine-tuning pipelines for specialized tasks.

- Designed and built scalable APIs (NodeJS, FastAPI) to enable AI-driven features, ensuring secure and efficient integration with existing systems.
- Architected and implemented LLM-powered features and custom dashboards for internal tools, significantly enhancing operational efficiency and insights.
- Implemented GenAI Safety Best Practices, with a strong focus on hallucination mitigation techniques and secure model usage.
- Developed and integrated GenAI agents and LLM meshes to create more sophisticated and interconnected AI capabilities. (Add this if true, based on JD)
- Led comprehensive testing and debugging of AI applications, including unit, integration, and UI testing, ensuring robustness and reliability.
- Researched and integrated novel AI/ML workflows into existing applications, enhancing functionality and user experience.
- Produced detailed technical documentation, diagrams, and demos to articulate AI strategies and facilitate adoption by engineering teams.
- Mentored engineering teams on AI implementation best practices and strategic alignment with business needs.
- Designed and built reusable React component libraries for AI-enhanced user interfaces.

Staff Software Engineer

Carbon Health (April 2022 — September 2022)

- Established engineering best practices for UI development
- Implemented advanced search functionality for patient-facing applications using a prefix tree

Senior Technology Architect & Power Programmer Mentor

Apple, LinkedIn, Infosys (May 2018 — April 2022)

- Architected and built four major applications including public-facing Sales & Trends
- Designed UI architecture with focus on performance and scalability
- Implemented GraphQL and Apollo for optimized data fetching
- Mentored nine engineers on technical implementation and career development
- Conducted technical interviews for major tech companies

UI Architect

Anthem Blue Cross, UST Global (June 2017 — May 2018)

- Led multiple engineering teams as Technical Lead
- Implemented Test-Driven Development practices
- Established modern best practices for nationwide development teams
- Mentored teams on Functional Programming principles

Senior UI Engineer

Beachbody (September 2014 — February 2017)

- Created custom front-end framework components
- Built internal projects using React, Elasticsearch, and MongoDB
- Led UI engineering team while working with executive stakeholders
- Implemented Agile processes across multiple teams

Technical Skills

- **Languages:** Python, TypeScript/JavaScript, HTML5, CSS3
- **Frameworks:** ReactJS, NodeJS, Express
- **AI/ML:** LLM Integration, Python ML Libraries, Natural Language Processing
- **Data:** GraphQL, Apollo, MongoDB, Elasticsearch
- **Tools:** Git, CI/CD Systems, Jest, Jasmine
- **Architecture:** Microservices, API Design, Component Libraries
- **Methodologies:** Agile, TDD, Functional Programming

Education & Certifications

- **Generative AI with Large Language Models:** Credential ID 813ZB298YZ77.
<https://coursera.org/verify/813ZB298YZ77>
- **Generative AI Essentials: Overview and Impact:** Credential ID ZCLFU5EU8NFG
<https://www.coursera.org/account/accomplishments/records/ZCLFU5EU8NFG>
- **Prompt Engineering for ChatGPT:** Credential ID TGDWJE83PFQY
<https://www.coursera.org/account/accomplishments/records/TGDWJE83PFQY>