Gerard Mennella (Orlando, FL)

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Professional Summary

Results-driven Full Stack Engineer with over 4 years of experience designing, developing, and deploying scalable web applications and enterprise-grade AI solutions within the FinTech sector. Proven expertise in the MERN stack, TypeScript, and Python, combined with a deep understanding of Generative AI, LLM integration (AWS Bedrock, Azure OpenAI), and RAG architecture. Adept at leading cross-functional teams and managing the full development lifecycle to deliver high-impact products.

Technical Skills

- **Languages:** TypeScript, JavaScript (ES6+), Python, SQL
- **Frontend:** React, Next.js, Angular, Redux Toolkit, SCSS, Tailwind CSS, Material-UI, Responsive Design
- **Backend:** Node.js, Express.js, RESTful APIs, GraphQL, Serverless Functions
- **AI/ML:** AWS Bedrock, Azure OpenAI, LangChain, RAG Implementation, Vector Embeddings, LLM Integration
- **Databases:** MongoDB, PostgreSQL, MySQL, DynamoDB, Pinecone, ChromaDB
- **Cloud & DevOps:** AWS (Lambda, S3, EC2, IAM), Azure, Docker, CI/CD, Git, GitHub Actions, Jira
- **Testing:** Jest, React Testing Library, Test-Driven Development (TDD)

Professional Experience

Lead Full Stack AI Engineer | Capco (*May 2023 - Present*)

- Served as a lead AI engineering consultant for top-tier financial clients, including a major Wealth and Asset Management firm.
- Architected and led the development of **8+ full-stack AI applications** (React, Node.js, LLMs), directly generating over **$2M** in new business opportunities.
- Developed and integrated autonomous AI agents into client platforms to automate portfolio analysis, client reporting, and internal workflows.
- Engineered and implemented secure Retrieval-Augmented Generation (RAG) patterns using AWS Bedrock and Azure OpenAI for sensitive financial data.
- Drove a **40%** improvement in process automation for client operations by pioneering innovative natural language processing applications.
- Directed international, cross-functional teams in an Agile/Scrum environment, managing stakeholder relationships and ensuring timely delivery of localized AI solutions.
- Received a **SPOT award** for consistently exceeding client expectations through the delivery of high-impact AI solutions.

Full-Stack Web Development Instructional Specialist | edX/2U (*November 2022 - July 2025*)

- Mentor 200+ students across multiple cohorts in mastering full-stack MERN development, providing technical leadership and 1-on-1 guidance.
- Conduct comprehensive code reviews for student projects, enforcing industry best practices in React, Node.js, and data structures.
- Develop and deliver supplementary curriculum on emerging technologies, including Generative AI integration and modern cloud deployment strategies.

Projects

AI-Powered Agile Workflow Automator | (Internal Corporate Project)

- Architected a full-stack application to automate the creation of Agile work items by processing transcripts from project requirement meetings.
- Built the backend with Node.js and Express to transcribe audio, then generate robust Epics, Features, User Stories, and test cases using LLMs via both LangChain and AWS Bedrock.
- Engineered a React front-end for transcript upload and configuration, integrating directly with Jira and Azure DevOps APIs to seamlessly push generated work items to the appropriate platform.
- **Tech Stack:** React, Node.js, Express, AWS Bedrock, LangChain, Jira API, Azure DevOps API.

Education

Full Stack Web Development Certificate

- University of Central Florida Coding Boot Camp (edX/2U)