

Mark Ferenc Sternefeld

markfsternefeld@gmail.com | (973) 362-5388 | linkedin.com/in/mark-ferenc-sternefeld

Skills

Core Skills: Agent/AI Workflow Development, Developer Tooling, Large Codebase Management, Agentic Service Architecture, Blockchain, Test/Compile Pipelines, Distributed Systems, Project Management, Collaboration

Languages: Python, Java, TypeScript, JavaScript

Frameworks/Tools: LangGraph, AWS (Bedrock, ECS, S3), React, Node.js, PostgreSQL, Git

Professional Experience

Application Developer, Specialist, Vanguard – Malvern, PA Aug 2024 – Present

- Designed and implemented a multi-agent research workflow leveraging, presented at enterprise AI Summit
- Prototyped AI-to-AI commerce to transact autonomously, showcasing the potential of agentic economic systems
- Built a tokenized data flow proof-of-concept on testnet using Ethereum Attestation Service
- Architected and delivered batch processing for FINRA datasets, generating \$1.5M in business impact

Tools: AWS Bedrock, Langgraph, MCP, A2A, AP2, Python, Langgraph, ECS, S3, TypeScript, AWS, EAS, Blockchain

Cloud Engineering IT Co-Op, Vanguard – Malvern, PA May 2023 – Aug 2023

- Architected and built an ECS Insights dashboard to view application metrics through a cost lens
- Optimized and enhanced an existing webservice to increase performance by reducing complexity
- Analyzed cluster data to build models identifying trends for resource optimization
- Synthesized executive summaries presented in department reviews to drive resource efficiency

Tools: React, Next.js, ECS, TypeScript, Splunk, Python, Java, AWS, Bamboo, JavaScript, Tailwind, Bitbucket, Jira

Cloud Software Engineer Co-Op, LenelS2 - Carrier – Pittsford, NY May 2022 – Jan 2023

- Spearheaded mobile development for iOS and Android to establish the structure for native development
- Secured billing systems end-to-end to mitigate risk exposure and reduce vulnerabilities
- Collaboratively developed a navigation overhaul to enhance user efficiency and accessibility
- Standardized and refactored UI components to improve overall user experience

Tools: React, Node.js, Android, Swift, Cucumber, Azure, Jenkins, JavaScript, HTML, CSS, Git, Kanban, Rally

Senior Software Engineer, Project Manager & Researcher, all.rit.edu – Rochester, NY Oct 2020 – May 2024
Accessible Learning Labs (NSF Funded)

- Managed distributed research and development team across universities to drive and promote progress
- Designed and developed an Ethics of AI learning lab to teach the importance of equitable software
- Published and presented a paper on equity and user bias at ICSE 2023
- Researched software accessibility and user experience to emphasize equity and inclusivity in design

Tools: React, Node.js, JavaScript, Tailwind, HTML, CSS, PostgreSQL, Git, Agile, Trello, Figma

Certifications

AWS Certified Cloud Practitioner, Amazon Web Services (AWS) · Issued Jan 2025 · Expires Jan 2028

Publications

Do Users Act Equitably? Understanding User Bias Through a Large In-Person Study

Mark Sternefeld et al., ACM/IEEE 42nd ICSE: SEIS, New York, NY, USA (ICSE-SEIS '23)

Education

Rochester Institute of Technology, Bachelor of Science in Software Engineering

- Minor: Business Administration