

SAMANTHA LAVRINC

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SUMMARY

Full-stack software engineer with three years of Java-based clinical NLP development, plus broader experience in system architecture, API design, and data modeling across FHIR/HL7 healthcare data systems and graph-based web applications. Background spans backend infrastructure, distributed data processing, and React/TypeScript frontend development, with additional strength in UX and visual design. Founder of Castle Logic LLC, leading custom software projects from requirements through deployment.

WORK EXPERIENCE

Founder & Software Engineer, Castle Logic LLC

Oct 2025 - Present

- Architected and built a relationship-mapping platform for therapists, turning client requirements into a scalable graph-based web application
- Designed the system architecture, relational schema, and graph data model, translating client requirements directly into data models, then implemented the full stack in React, PostgreSQL, and Supabase
- Designed and operate an AI-orchestrated development workflow, using an LLM to translate stakeholder feedback into prioritized, context-batched tickets, then reviewing and merging completed work to iterate quickly as a solo engineer

Software Engineer, NLP & Clinical Informatics, Realize Intelligence

Oct 2022 - Oct 2025

- Built and maintained a multi-layer clinical NLP pipeline in Java, with PostgreSQL and Apache cTAKES, processing hundreds of thousands of patient records and clinical terminology concepts into FHIR-compliant data
- Designed extensible Java-based NLP components and inference engines for rule-based extraction and cross-entity clinical reasoning
- Took ownership of critical pipeline components after senior team departures, expanding JUnit coverage and keeping clinical logic reliable at that scale
- Partnered with the Chief Medical Officer to translate oncology trial protocols into technical requirements and matching logic

Software Engineer Intern, UPMC Information Services

Jun 2021 - Aug 2021

- Redesigned Azure DevOps CI/CD pipelines, migrating Classic pipelines to YAML for production and review workflows
- Contributed to Agile healthcare software development using Azure DevOps, C#, and HIPAA practices

TECHNICAL SKILLS

Languages

Java, Python, JavaScript, TypeScript, C#, SQL, HTML/CSS

Frontend & Design

React, Vite, Tailwind CSS, Figma, UX wireframing, visual design principles

Databases

PostgreSQL, Supabase, relational schema design, data modeling

Healthcare & NLP

Apache cTAKES, FHIR/HL7, SNOMED CT, LOINC, RxNorm, ICD-10, ICD-O, Regex

DevOps & Cloud

Git, GitHub, Docker, Azure DevOps, AWS, Vercel, CI/CD, YAML Pipelines

System Design

API design, scalable architecture, distributed data processing, data modeling

AI-Assisted Engineering

LLM-orchestrated development workflows, agentic task decomposition, prompt engineering

Testing & Collaboration

JUnit, Cucumber, Groovy, Jira, Confluence, Agile/Scrum, cross-functional collaboration

EDUCATION

B.S. Computer Science, University of Pittsburgh

Sep 2020 - Aug 2022

A.S. Computer Information Systems, Community College of Allegheny County

Aug 2019 - Aug 2020