Frederick Hamer

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Education:

Bachelor of Science, Software Engineering — **May 2026**
Minors in Mechanical Engineering and Mathematics — **GPA: 2.96**
Rose-Hulman Institute of Technology | Terre Haute, IN — **Major GPA: 3.03**

Relevant Courses: Data Structures and Algorithm Analysis, Programming Language Concepts, Software Design, Software Quality Assurance, Software Architecture, Formal Methods, Operating Systems, Databases, Software Project Management, Software Constraints & Evolution, Software Requirements Engineering, Deep Learning, Mechatronics

Experience:

Consumer Home Care Referral Portal with Duett — September 2025 – Present
Junior Developer
- Building a consumer-facing SaaS web app to connect individuals with caregivers
- Create a directory of caregivers for communities to provide a wide range of care options
- Develop a Care Plan Wizard to help users build a customized care plans
- Adhere to industry standard security and compliance practices for regulated development

DataAnnotationTech, *Remote* — Jan 2024 - Present
Data Annotator and Reviewer
- Write challenging coding, STEM, and general prompts to challenge LLM's and force errors
- Analyze prompts and responses to discover errors and uncover issues with LLM's
- Review others' work to ensure high quality of work and correct behavior
- Help safely grow AI by ensuring responses are helpful, honest, and harmless

FGH Software — May 2024 - Present
Freelance Software Development Agency
- Design and develop websites for individuals and small business clients
- Build and integrate AI systems for small business clients
- Maintain developed systems and architectures for futureproofing and up-to-date information

Projects:

Catan Software Maintenance Project — Apr 2025 – May 2025
- Refactored legacy code of a brownfield Catan Board Game to remove bad code smells and designs
- Implemented new features and test cases to expand functionality and cover all code
- Wrote system documentation for different stakeholders: product support, devs, and users

Racket Interpreter — Jan 2025 – Feb 2025
- Wrote an interpreter in ***Racket*** to implement basic functional programming language constructs
- Expanded on basic constructs to implement more complex ones such as the let family of expressions
- Converted to continuation passing style to minimize stack frames and improve performance

ClubFlow: Organization Management Website — Jan 2025 - Feb 2025
- Implemented a 3-schema architecture using ***SQL***, ***Python***, and ***HTML/CSS/JavaScript***
- Developed backend with ***Flask*** and implemented salting and hashing with ***BCrypt***
- Designed a clean user-friendly website that implements CRUD functionality

Design Pattern Linter — Jan 2025 - Feb 2025
- Developed a linter to visualize source code design with ***ASM*** and ***PlantUML***
- Added functionality to identify design patterns such as decorator and singleton
- Included ability to report design problems such as singleton abuse and overdependencies

Catan Board Game — March 2024 – May 2024
- Achieved complete code coverage via BVA and mutation testing
- Employed TDD to maintain Git workflow and version control
- Implemented i18n to offer locale options for different languages with ***Java***

Computer Architecture Processor Project — Dec 2023 – Feb 2024
- Designed a general-purpose processor with an accumulator-based architecture
- Created an assembly-type instruction set specific to the processor hardware
- Modeled, tested, and debugged the design with ***Verilog*** to maximize performance
- Experienced documentation of design choices and compromises on a large-scale project

Skills:

Java, Python, C, C++, SQL, JavaScript, HTML, CSS, Racket, MATLAB, Git

Honors & Involvement:

Deans List – Rose-Hulman Institute of Technology — 2/12 Quarters
Triangle Fraternity – Member — March 2022 – Present