Esther Hacker

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EDUCATION

Rochester Institute of Technology (RIT), Rochester, NY

Expected Spring 2027

Bachelor of Science, Software Engineering

GPA: 3.8/4.0, Dean's List (All semesters)

Relevant Courses: Web-Based Software Systems, Object-Oriented Design Principles, Software Subsystems, Software Process & Project Management, Embedded Systems, Secure Software Engineering, Cloud Software Systems

JOB AND LEADERSHIP EXPERIENCE

Microsoft, Redmond, WA, Explorer Intern

May 2024 – August 2024

- Developed an AI-driven data analysis feature in Copilot for Python in Excel, enhancing functionality for 15,000+ customers.
- Collaborated with OpenAI LLM prompt engineers to enable natural language-driven AI data analysis in Excel.
- Implemented dynamic UI elements and robust state management using React, TypeScript, Redux, and Thunk.

Society of Software Engineers, RIT, Head of Technology

January 2024 – January 2025

- Led a 37-member team to redesign the organization website to increase usability and enhance scalability and maintainability.
- Administered and optimized organizational technology platforms such as GitHub and Docker Hub to streamline operations.
- Facilitated weekly workshops in relevant tech topics such as JavaScript, TypeScript, Next.js, featuring both lectures and hands-on practice problems to enhance team's proficiency with the project's tech stack.

PROJECTS

Sentiment-Based Stock Prediction Generator, RIT, Cloud Computing

March 2025 - Present

- Develop a full-stack cloud-based system to predict stock trends by analyzing sentiments scraped from major stock forums, news articles, and financial websites.
- Utilize AWS services, including Amplify with Vite, API Gateway, Lambda, Terraform, Comprehend, DynamoDB, SNS, and QuickSight, to build and deploy the pipeline.
- Apply Agile Scrum methodologies, incorporating sprint-based development, unit testing, and iterative improvements for enhanced accuracy and performance.

Petal, RIT, Personal Project

March 2023 - Present

- Developed a photo-based communication app for aphasic patients to simplify caregiver interactions through an intuitive interface.
- Migrated from Java and JavaFX to Django, MongoDB, and Auth0 for scalability and authentication.
- Enhanced functionality by integrating OpenAI APIs to enable AI-driven category sorting and image generation.
- Won multiple awards, including "Most Viable Commercial/Social Hack" at WiCHacks 2023 and "Best Use of Auth0," "Best UI/UX Hack," and "Best Use of AI" at BrickHacks II 2025.

NutriApp, RIT, Software Subsystems

February 2024 – May 2024

- Collaborated to design and develop a multi-threaded fitness tracking application in Java Spring Boot and Next.js that allows users to log meals, track workouts, and set personalized nutrition goals.
- Designed and implemented an undo system, allowing multiple users to revert changes when modifying meals or workout logs without compromising data integrity.
- Designed and implemented a flexible data import/export system, enabling integration with multiple file formats.

SKILLS

Programming Languages: Python, Java, Typescript, Javascript, C, C++, SOL

Frontend: React, Next.js, Angular, Vue, Tailwind **Backend:** Spring Boot, Django, Express.js, Flask

Other: AWS Services, PostgreSQL