Evan Rovelli

Email: erovelli@umass.edu | **Cell:** (978) 831-4906 | Concord, MA
LinkedIn: linkedin.com/in/erovelli | **GitHub:** github.com/erovelli

EDUCATION

University of Massachusetts Amherst   Expected May 2024
Bachelor of Science in Computer Engineering, **In-Major GPA: 3.801**
Minor in Mathematics, Dean's List, IEEE Eta Kappa Nu Honor Society.

ENGINEERING EXPERIENCE

Fidelity Investments, Merrimack NH; Full-Stack Engineering Intern   Summer 2023
- Led the design and development of a self-service application, achieving a **93.3%** reduction in the onboarding delay to Fidelity's Universal Router, managing 51B transactions annually. Reduced end-to-end onboarding time from **15 to 1** business days, using Angular and Springboot technologies.

Full-Stack Engineering Intern   Summer 2022
- Modernized customer-facing text notification management system, driving client engagement by incentivizing text notification adoption. Achieved **99.94%** cost reduction, slashing client communication overhead from **$5 to $0.03** per notification.
- Optimized multiple enterprise-level SOAP based microservice applications to new REST services, improving overall system performance, scalability, and interoperability.

COURSEWORK

Hardware: Intro to VLSI Design, Computer Architecture, Synthesis and Verification of Digital Circuits, Embedded Systems, Hardware Organization & Digital Design, Security Engineering.
Software: Data Structures & Algorithms, Systems Programming, Computer Networking, Intro to Computation.

SKILLS

Programming Languages: C, Python, Java, JavaScript, TypeScript, MATLAB, Verilog, HTML, CSS.
Technologies and Tools: Angular, Springboot, Git, Terraform, SQL.
Methodologies: Unit Testing, Object-Oriented Programming (OOP), CI/CD, Frontend, Backend, Full-Stack, Bare-Metal.

PROJECTS

FPGA RLE Encoder Lab   Spring 2023
- Implemented hardware RLE encoder on Cyclone V SoC FPGA averaging 1.5 compression ratio using Verilog.

Tiny Shell Lab   Fall 2022
- Implemented a Unix shell with process management, signal handling, and job control capabilities.
- Successfully integrated background and foreground execution, utilizing signals for interruption and suspension.
- Mastered core systems programming concepts, including process identification, zombie process handling, and resource management.

Networking Security Lab   Fall 2022
- Engineered an end-to-end encryption and socket data transfer pipeline for secure image transfer over public channel.
- Developed codebase to encrypt images using DES and fortified security through key encryption using RSA.
- Conducted cryptographic key handshake utilizing RSA key asymmetry to establish one-sided client-server encryption.

New York Times Mini Crossword Tracker   January 2022
- Developed and implemented a robust full-stack web application utilizing Flask and SQL Alchemy, enabling users to track crossword scores, compete with friends, and analyze performance metrics.

Housing Price Estimator   Fall 2021
- Developed a machine learning model using Linear Regression and Gradient Descent to predict house prices.
- Analyzed model accuracy, optimized learning rates, and presented model efficacy in a written report.

HackUMass, RookieVision   Fall 2021
- Collaborated with Hackathon team to build a full-stack web application, leveraging Google's Vision API to classify uploaded images and provide audible assistance for visually impaired individuals.

INTERESTS

Artificial intelligence, cooking, weightlifting, and snowboarding.