Molly MacLaren

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EDUCATION

University of California San Diego *Sept 2021 - Dec 2024*
B.S. Computer Engineering 3.51/4.0

- Past coursework: Advanced Data Structures, Systems Programming, Algorithm Design, Software Engineering, Intro to AI, Discrete Math, CS Theory, Programming Languages, Operating Systems, Engineering Statistics, Analog Design, Circuits and Systems, Signal Analysis, Managing Diverse Teams, Research Methods for User-Centered Programming Language Design
- Current coursework (complete by June 2024): Digital Systems, Advanced Digital Design, Computer Architecture, Intro to Computer Security, Compiler Construction

EXPERIENCE

Programming Languages Research Assistant *June 2023 - Present*
Kale Research Lab

- Determined most frequent and costly compilation errors for building compilers in the Rust programming language by rebuilding development timelines through repository commits and categorizing error resolution sessions by error code across 11k error messages.
- Contributed Analysis and Results sections for a paper in HATRA, part of SPLASH 2023. ↗
- Developed SALT, a VScode extension to automatically log Rust compilation errors, which has 200+ users and 50+ active research participants. ↗
- Investigating common Rust errors across programming experience levels to develop IDE tool solutions.

Security Research Assistant *Sept 2022 - August 2023*
Ujima Security and Privacy Research Lab

- Designed and deployed surveys based on weaknesses discovered in VR and gaming privacy policies.
- Performed preliminary NLP n-gram analysis on 30k Reddit posts to find the most pressing privacy topics in gaming communities.
- Presented a poster at JSOE's Undergrad Research Symposium and a workshop paper in WIPS, part of SOUPS 2023. ↗

ACM Cyber Board Member *April 2022 - Present*
ACM at UC San Diego

- Hosts events and informational talks for undergraduates on security topics.
- Interest in Forensics, Cryptography, and Reverse Engineering.
- Organized Capture-the-Flag (CTF) teams for new members to practice skills in cybersecurity.
- Continuing challenge writer for SDCTF (May 2023-Present). ↗

TECHNICAL SKILLS

Languages	Java, Python, C, C++, TypeScript, JavaScript, Haskell, Rust, ARM Assembly
Tools	Git, UNIX, Node.js, SQLite, Azure, AWS