# Agam Kohli

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## RELEVANT EXPERIENCE

### Software Engineer
*Arm*
Oct 2024 – Present
*Austin, TX*

- Lead verification enablement for Arm's latest LITTLE core in ARM's big.LITTLE architecture, the energy-efficient processor in mobile SoCs. Coordinate across global design and verification teams.
- Deliver monthly releases of Raven, Arm's CPU verification enablement suite used by top-level design verification teams of said core, packaging new ISA-level bug detection capabilities into consistent, stable builds.
- Implemented power verification flows in Raven, enabling uni- and multiprocessor systems to verify warm and implementation-defined resets alongside irritators (random interrupts, external debugger events, context changes, etc.), replacing legacy flows and broadening test coverage.

### Graduate Software Engineer
*Arm*
July 2023 – Oct 2024
*Austin, TX*

- Supported CPU verification of architectural and micro-architectural features in ARM Cortex A, R, and M cores.
- Developed a register corruption checking feature that intentionally corrupts register values until first legal read/write, enabling detection of unintended register accesses and subtle architectural violations.
- Documented and deployed random test generation methodology in C++ and Python.

### Founder
*FortisCard LLC*
January 2025 – Present
*Austin, TX*

- Founded an Austin-based startup (fortis-card.com) that develops and commercializes a cryptocurrency hardware wallet, FortisCard. Leverages elliptic curve cryptography for transaction signing and hierarchical deterministic key management.
- Implemented all relevant Bitcoin and Ethereum Improvement Protocols in an offline JavaCard running a restricted version of the JVM. This "cold" environment along with an open source stack from firmware to mobile app ensures verifiable end-to-end security for managing cryptocurrency funds.

### CS Research Fellow
*Google*
Sept. 2022 – Dec. 2022
*Remote*

- Selected for Google's competitive 12-week Computer Science Research Mentorship Program 2022B cohort.
- Worked 1:1 with a Google mentor on navigating Machine Learning and Compiler research with Apache TVM.
- Attended virtual networking events, career panels, tech talks, and information sessions about computing research opportunities.

### AI Fellow
*University of Michigan*
Aug. 2022 – April 2023
*Ann Arbor, MI*

- Fused the basic safety messages from vehicles with bounding boxes from smart intersections in real time to reduce unimpaired crashes by an estimated 90%.
- Validated AI inference data from smart intersection hardware in real time using Gaussian regressions with ground truth data from CAVs (connected and autonomous vehicles) sent through MQTT.
- Partnered with AI startup P3Mobility to deploy our product in Ann Arbor intersections.
- Attended Entrepreneurship courses with Ann Arbor startups and global treks with high-impact companies in San Francisco to discuss leveraging Entrepreneurship with AI.

## EDUCATION

### University of Michigan
*Bachelor of Science in Engineering, Major in Computer Science*
Aug. 2020 – April 2023
*Ann Arbor, MI*

- 3.8/4.0 GPA
- Organizations: M-STEM Student Council Board, Michigan Data Science Team, Undergraduate Research Opportunity Program
- Coursework: Static & Dynamic Compilers, Computer Architecture, OS, ML, DS/Algorithms, CV, Web Systems

## TECHNICAL SKILLS

**Languages**: C++, Python, ARM Assembly
**Softwares**: LLVM, Lex/Yacc, PyTorch, Apache TVM, Linux
**Certifications**: Scaled Agile Framework (SAFe) 5.0 Practitioner