

# Agam Kohli

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## RELEVANT EXPERIENCE

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### Graduate Software Engineer

July 2023 – Present

*Arm*

*Austin, TX*

- Support verification of architectural and micro-architectural features in ARM Cortex A, R, and M cores
- Develop CPU verification software in C++ and Python
- Document and deploy random test generation methodology

### CS Research Fellow

Sept 2022 – December 2022

*Google*

*Remote*

- Selected to join competitive 12 week research program by Google Computer Science Research Mentorship Program (CSRMP) 2022B cohort.
- Worked 1:1 with a Google mentor on navigating Machine Learning and Compiler research with Apache TVM.
- Attend virtual networking events, career panels, tech talks, and information sessions about computing research opportunities.

### AI Fellow

August 2022 – April 2023

*University of Michigan*

*Ann Arbor, MI*

- Fused the basic safety messages from vehicles with bounding boxes from smart intersections in real time to potentially reduce unimpaired crashes by 90%.
- Partnered with AI startup P3 Mobility 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.

## RELEVANT PROJECTS

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### Decaf Static Compiler | C++, Compilers, Lex/Yacc

January 2022 – April 2022

- Developed a static compiler for toy C-like language, Decaf, using C++.
- Front-end compiled to a flexible three address code IR using Lex/Yacc.
- Middle-end optimizations using Dead Code Elimination, Common Subexpression Elimination, Forward Copy Propagation.
- Back-end register allocation using Chaitin's Graph Coloring heuristic.

### Street Fighter II AI | Python, PyTorch, Reinforcement Learning, Conv. Net

April 2022

- AI based on Deep Q Reinforcement Learning and Convolutional Neural Network that plays SNES game Street Fighter II.
- Written using Python frameworks PyTorch for Reinforcement Learning and Convolutional Neural Network and Gym Retro for emulation.
- Wins 88% of matches compared to a random model that wins 23% of matches.

## EDUCATION

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### University of Michigan

Aug. 2020 – April 2023

*Bachelor of Science in Engineering, Major in Computer Science*

*Ann Arbor, MI*

- Major: Computer Science
- 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

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**Languages:** C++, C, Python, ARM Assembly

**Softwares:** LLVM, Lex/Yacc, PyTorch, Apache TVM, Linux

**Certifications:** Scaled Agile Framework (SAFe) 5.0 Practitioner