

Bhargav Kulkarni

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Education

University of Utah

PhD in Computer Science

2023-Present
Salt Lake City, UT

- Advised by Prof. Pavel Panchekha; in PL and Formal Methods
- **CGPA:** 4.0/4.0; courses: PL, architecture, algorithms, verification
- TA for Compilers, Computer Organization

BITS Pilani

B.E. in Computer Science

2019-2023
Goa, India

- **CGPA:** 8.9/10.0; Merit scholarship holder
 - TA for OS, compilers, networks, architecture, VLSI Design, and more
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Research

The Herbie Project @ University of Utah [\[source\]](#)

2023-Present

- Worked on adapting techniques from floating-point static analysis and debugging into a sound and performant floating-point error debugging technique

Research Intern @ NASA Langley Formal Methods

2024

- Worked on generating PVS proof certificates for Herbie's accuracy aware optimizations

HCFC Lab @ BITS Pilani, Goa

2022

- Developed a portable Indian Sign Language translator.
- Used beam search and Hidden Markov Models and conducted user study.

Formalizing Automata @ CMI, India

2022

- Worked with Prof. SP Suresh and Prof. Anup Basil Mathew @ Chennai Mathematical Institute
 - Formalized basic DFA/NFA constructions in Coq/Rocq
 - Some initial work adapted into undergraduate Discrete Structures course
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Skills and Projects

General Programming: Python, Racket, Java, JavaScript, SQL

Systems Programming: C/C++, Bash, Rust

Hardware: Verilog, x86

Trinity Game Engine: A game engine and byte code VM for scripting. [\[source\]](#)

Logic in Coq: Classical propositional logic and natural deduction in Coq/Rocq. [\[source\]](#)

CheemScheme: Scheme dialect in C++ with tail recursion and error reporting. [\[source\]](#)