Rishav Chakravarty

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Hanover, NH

Education

Dartmouth College *Sep 2025 - Jun 2027 (expected)*
M.S. | *Computer Science* *Hanover, NH*

Dartmouth College | *GPA: 3.5* *Sep 2021 - Jun 2025*
B.A | *Computer Science, English* *Hanover, NH*
Achieved High Honors for Computer Science Thesis

- Relevant Coursework: *Digital Electronics, Computer Architecture, Advanced Digital Design, Analog Computing, Advanced Algorithms, Computer Graphics & Rendering, Operating Systems, Theory of Computation*

Experience

Teaching Assistant *Jan 2022 - Mar 2022, Sep 2025 - Present*
Dartmouth College Computer Science Department *Hanover, NH*

- Lead the remake of the Operating Systems course to attend to modern operating system standards
- Teach course materials of digital electronics, algorithms, operating systems, computer architecture, and theory of programming languages

Production Lead, Mentor, Software Developer *Sep 2022 - Jun 2025*
DALI Lab *Hanover, NH*

- Oversaw all the lab's software projects, ensuring smooth operation and good scoping definition
- Automated common lab processes of hiring, project selection, deployment, and project delivery
- Defined high-level lab direction with faculty supervisors and other student leaders to eliminate hiring bias
- Awarded Neukom Scholarship (2023, 2024) for excellent mentorship and leadership

Lead Fullstack Developer *Aug 2023 - Aug 2024*
Chambiar AI *Remote*

- Provided professional resources, assistance for difficult interviews, and personal development goals to underprivileged users using a RAG-trained LLM to reduce systemic hiring prejudice
- Led fullstack development of the startup as an intern with an international team
- Pitched to VCs and accelerators, accepted to the Workbox Future of Work accelerator program

Research and Projects

3Tree: Segmented CPU Caching for Speed & Eviction Set Security *Mar 2024-May 2025*
Undergraduate Computer Science Thesis Submission (High Honors)

- Investigated current CPU caching perfomance techniques and their effects on computer security
- Developed and evaluated novel cache eviction algorithm based on modern replacement algorithms

AutoSum: Automatic Synthesis and Verification of Function Summaries... *Nov 2025 - Jan 2026*
Submitted to ACM CCS 2026

- Evaluated summaries of `libc` functions to improve symbolic execution perfomance and correctness

ABISan *Jan 2025 - May 2025*

- Formalized security of low-level machine code; awarded Lovelace grant to fund lab research

Skills

Expertise: C/C++, Rust, Zig, Python, VHDL, SystemVerilog
Software: Blender 3D, Linux, OpenGL/OpenCL, Embedded Systems, FPGA, Cadence, CAD, Git
Languages: English (Native), Bengali (Native), Spanish (Proficient), Japanese (Novice)
Additional Interests: 3D Graphics, Illustration, Musical Performance (Bass guitar, Violin)