

Education

Ashoka University, Haryana, India

August 2022 – May 2026

B.Sc. (Hons) in Computer Science and Mathematics

- Cumulative GPA: **3.76/4.00**
- Major GPA: **3.76/4.00**
- Graduated **Magna Cum Laude**

Internships and Work Experience

Alt Carbon | Intern

June 2025 – August 2025

- Conducted a **meta-analysis** of Machine Learning and Computer Vision applications in soil science to direct the company's climate dataset utilization strategy.
- Authored a **comprehensive PRD** defining the mathematical logic, data cleaning, and processing workflows for the credit calculation and verification engine.

Raman Research Institute | Research Associate

June 2024 – December 2024

- Conducted **quantum computing research** under the supervision of Professor Urbasi Sinha at the Quantum Information and Computing Lab (QuIC), continuing beyond the summer internship period.
- Developed novel quantum algorithms incorporating Quantum Fourier Transform techniques to **optimize signal processing** for one-dimensional and two-dimensional datasets.

Teaching Experience

Symbolic Logic and Applications | Teaching Assistant

August 2025– December 2025

- Conducted office hours, evaluated assignments and exams, and assisted in preparing course assessments for a 5000-level Computer Science course with undergraduate and graduate students.

Theory of Computation | Teaching Assistant

January 2026–May 2026

- Delivered lectures, conducted office hours, evaluated exams, and assisted in preparing course assessments for a 40 student Computer Science course .

Awards and Honors

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- **Bronze Medal** for Academic Excellence in Computer Science and Mathematics – Ashoka University
 - **Best Undergraduate Thesis** for thesis titled “Representations for Stochastic Regular Languages” – Ashoka University
 - **Excellence in Teaching Assistantship** – Ashoka University

Publications

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- Agarwal, S., Faizi, A. A., Singh, S., & Thakkar, A. (2025, November). *From Transformers to Weighted Automata: Towards the Verification of Large Language Models*. Paper presented at the 13th International Symposium "From Data to Models and Back" (DataMod), co-located with SEFM 2025, Toledo, Spain.