

Sumeet Shirgure

COMPUTER SCIENTIST

Orlando, Florida

✉ sumeetshirgure@gmail.com | 💻 sumeetshirgure.github.io | 🔗 linkedin.com/in/sumeetshirgure

"Simplicity is the ultimate sophistication."

Education

University of Central Florida

PhD. in Computer Engineering

- Advised by Prof. Siyuan Niu.
- Research focusing on quantum computing.

Orlando, FL

August 2025 - present

University of Southern California

M.Sc. (Hons.) in Computer Science

- Graduated with a GPA of 3.9/4.0
- Accepted into the CS MS honors program.
- Initiated into the Phi Kappa Phi honor society.
- Awarded the graduate research assistant fellowship.

Los Angeles, CA

Aug 2021 - May 2023

Indian Institute of Technology, Kharagpur

B.Tech (Hons.) + M.Tech in Computer Science and Engineering

- Graduated with honors and a cumulative GPA of 9.06/10.00

West Bengal, India

July 2015 - May 2020

Work Experience

Ming Hsieh Department of Electrical and Computer Engineering, USC

Research assistant

- **Job description:** Research assistant at the System Power and Optimization and Regulation Technology (SPORT) lab
- **Project description:** Part of the ColdFlux project [\[Link\]](#) under the SuperTools [\[Link\]](#) initiative, aimed at developing design automation tools for superconductor electronics.
- **Responsibilities:** ownership of code developed at the lab and making software deliverables for the institutions involved. I also took the initiative to improve code quality, and to optimize the performance of some of the tools by factors of magnitude.
- **Skills:** Software engineering, docker, C, C++, python, graph algorithms.

Los Angeles, CA

May 2022 - April 2023

Google

Software Engineer

- **Job description:** SWE in the call ads infrastructure team.
- **Work description:** Programmed a cache to save time on API calls to a text-to-speech deep neural network model. Used Google's BigTable for caching, and the result was an improvement in latency by at least 30%. Other than that, I aided in the prototyping of a new product that worked in conjunction with call ads and Google Maps.
- **Skills:** C++, scripting, software version control, parts of Google's technologies, remote communication, general problem solving

Bengaluru, India (working remotely)

August 2020 - June 2021

D.E Shaw

Software Engineering intern

- **Project description:** Improving the automated ranking quality of DesFlow – a ticket resolution and workflow management system.
- **Responsibilities:** Experimented with various online machine learning models for ranking feeds. Took the initiative to also qualitatively evaluate their relative performance on production data by surveying users.
- **Skills:** Java, scripting, machine learning, statistics, data processing
- Based on my work and presentation, I was offered a full time position.

Hyderabad, India

May 2019 - July 2019

Adobe

Deep learning research intern

- **Project description:** research the problem of natural language paraphrase generation using deep neural models, with an intent to create robust chat bots. Surveyed existing literature and devised improvements over a baseline model.
- **Responsibilities:** Experimented with new methodologies for natural text generation involving alternative forms of language modelling and feature augmentation using dependency parse based syntactic information.
- **Skills:** python, tensorflow, pytorch, deep learning
- Based on my work and presentation, I was offered to intern again the next summer.

Noida, India

May 2018 - July 2018

Achievements, Honors and Awards

2015	Ranked 415th among 1.5 million applicants , IIT Joint Entrance Exam (Advanced)	India
2019	Top 8 teams from the Indian subcontinent , International Collegiate Programming Contest [Link]	Porto, Portugal
2019	Top 1000 participants worldwide , Google's CodeJam [Link]	Online
2019	Top 500 participants worldwide , Meta's HackerCup [Link]	Online
2020	Scored 325/340 , GRE, Verbal: 157/170, Quantitative: 168/170, 4.0/6.0 Analytical writing	India
2021	Dean's Master's scholarship , \$5000 fee waiver	USC
2022	Quantum computing hackathon winner , QCHack [Link]	Online
2022	Accepted into the CS MS honors program , [Link]	USC
2022	Graduate RA award , Full tuition fee waiver and stipend	USC
2023	Initiated into Phi Kappa Phi , Top 10% of graduate students	USC
2023	MIT iQuHACK participant , Invited to the in-person quantum computing hackathon. [Link]	MIT
2025	ORCGS Doctoral Fellowship , Full tuition fee waiver and stipend	UCF

Publications

POSTERS

Dynamic Circuit Compilation for Sparse Qubit Connectivity

Sumeet Shirkure, Siyuan Niu

Proceedings of the 2025 IEEE International Conference on Quantum Computing and Engineering (QCE25) (2025). 2025

A flaw in the NeurIPS unlearning challenge and an algorithmic framework for entropy regularization.

Sumeet Shirkure

NeurIPS "New in ML" workshop (2023). 2023