Omkar Joshi - Resume

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Education

North Carolina State University — Raleigh, NC
PhD in Computer Science — *August 2025 –*
- Advised by Dr. Munindar Singh

North Carolina State University — Raleigh, NC
Masters in Computer Science — *Aug. 2023 – May 2025*
- Cumulative GPA: 4.0/4.0
- Relevant Coursework: Artificial Intelligence, Natural Language Processing, Social Computing and Decentralized AI, LLMs in Security, Controllable AI

COEP Tech — Pune, India
Bachelor of Technology in Computer Science, Minor in Financial Engineering — *Aug. 2016 – May 2020*
- Cumulative GPA: 8.65/10.0
- Undergraduate Thesis: Modelling Option Pricing using Local Volatility Model

Experience

Full Stack Developer, Equities Tech — June 2020 – July 2022
Credit Suisse Services AG — *Pune, India*
- Designed, developed and deployed a new service to integrate Stock Borrow Agreement data into existing database architecture post new financial legislation being passed in Hong Kong in 2021.
- Developed a modern UI for an internal tool to replace EquiLend NGT.
- Migrated internal dashboards from AngularJS to Angular6.
- Migrated 200+ active, interdependent jobs to new servers using Control-M.

Publications and Service

ArgAnalysis35K - A Large Scale Dataset for Argument Quality Analysis — ACL 2023
Omkar Joshi, Priya Pitre*, Dr. Y.V. Haribhakta* — *Toronto, ON, Canada*

A Proposal for a Parliamentary Debating System — NeurIPS-HiLL 2022,
Priya Pitre, Omkar Joshi** — *New Orleans, LA*

Reviewer — EMNLP 2022, AAAI 2023

Research Projects

LLM-based Multiagent Protocols — May 2025 –
- Advised by Dr. Munindar Singh, NCSU and Dr. Amit Chopra, Lancaster University
- Investigating the improvements in efficiency that AI-enabled multiagent protocols provide compared to a rules-based approach.

LLM-based Debate Feedback Generation — November 2023 – present
- Advised by Dr. Henning Wachsmuth, Leibniz University.
- Used argument summarization and few-shot learning to tune GPT4 to perform debate quality analysis.
- Applied a multi-stage, multiagent approach to the problem of determining winners and providing targeted feedback.
- Preliminary results indicate 70% of participants in trial debate like the system's feedback compared to 42.3% for human judges.

Technical Skills

Languages: Python, C/C++, , SQL (MySQL), JavaScript, HTML/CSS, R
Frameworks: Supabase, Angular, Node.js, PyTorch, TensorFlow, Keras
Research Interests: Multiagent Systems, Protocols, LLMs, Argumentation