Omkar Joshi - Resume

703-789-6258 | ojjoshi@ncsu.edu | linkedin.com/in/omkar-joshi-6b4709148 | University of Michigan, PhD in CS

Education

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 and Projects

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

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*

JChat: A JATMO-inspired Approach to Prompt Injection Detection — ARR December 2024
Omkar Joshi, David Root*, Collin Lynch* — *Under Review*

Reviewing Experience

EMNLP, AAAI

Research Projects

Phishing and LLMs — August 2024 – present

- Advised by Dr. Alexandros Kapravelos, North Carolina State University.
- Investigating the use of LLMs to generate code for phishing pages.

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.

Argumentation based Link Prediction using LLMs — August 2024 – December 2024

- As part of Social Computing and DAI Fall 2024.
- Investigated the impact of argumentative features to the task of user link prediction on Twitter/X.

Technical Skills

Languages: Python, C/C++, Java, SQL (MySQL), JavaScript, HTML/CSS, R
Frameworks: Angular, Node.js, PyTorch, TensorFlow, Keras
Research Interests: LLMs, Argumentation, Computational Social Science, Controllable AI