BHARGAV KRISHNA THOTA

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LinkedIn | GitHub | Publications | Portfolio

SUMMARY

A PhD graduate with 3 years of professional experience having strong background in applied research and software development building server-side and web applications. Skilled in translating complex research problems into practical scalable solutions, with expertise in data structures, algorithms, system design and design patterns.

EDUCATION

Doctor of Philosophy (Ph.D.) in Computer Science and Engineering | Southern Illinois University, Carbondale | GPA: 3.78 | Dec 2025
Master of Science(M.S) in Computer Science | University of Illinois, Springfield **|** GPA: 3.87 | May 2017
Bachelor of Technology in Computer Science and Engineering | Jawaharlal Nehru Technological University, India | Apr 2015

SKILLS

Programming Languages: Java, Python, Bash
Data Analytics: Machine Learning, Deep Learning in Python
Databases: SQL, MySQL, NoSQL(Neo4j)
Web Technologies: HTML, CSS, Javascript, JQuery
Tools: Eclipse, SVN, Git, Jupyter Notebook

PROFESSIONAL EXPERIENCE

Software Engineer **Enfusion,** Chicago, IL Sep 2017 – Aug 2020

- Enhanced the portfolio management system used by hedge funds of 100+ clients improving trade, position and cash accuracy monitoring.
- Automated data collection from prime brokers, custodians and fund administrators using Secure FTP protocols and custom bash scripts.
- Designed ETL pipelines for cleaning, normalization and aggregation processing daily transactions.
- Authored and optimized complex SQL queries for MySQL, creating schemas, tables, indexes for increasing the performance.
- Streamlined end of the day trade reporting by developing JAXB-based XML parsers for automated report generation.

Assistant System Engineer **Tata Consultancy Services,** India Jun 2015 - Jan 2016

Contributed to the design and development of Java/J2EE Web Application using MVC architecture. Coded Data Access Objects, Service Controllers, and validation classes to implement core application logic.

ACADEMIC EXPERIENCE

Graduate Research Assistant **Southern Illinois University,** Carbondale Aug 2022 – Dec 2025

- Built "XArgue," a cross-platform mobile application for iOS and Android platforms.
- Architected the application's back end and real time communication using Java, Neo4j and Socket.IO.
- Implemented a logging and monitoring system using Grafana Loki to analyze application performance.

Graduate Assistant **Southern Illinois University**, Carbondale Aug 2020 – Dec 2025

- Instructed CS-200B Computer Concepts course, covering algorithms, AI, computer organization, and programming languages.
- Teaching Assistant for CS-436 Artificial Intelligence, CS-537 Advanced Expert Systems, CS-480 Computational Statistics II.
- Migrated cadence and synopses tools from CentOS to Ubuntu 22.04 by developing and modifying scripts to ensure software compatibility.

PROJECTS

Assessing the Impact of Social Networks on Cyber-Argumentation

- Developed a prototype of a mobile application of cyber argumentation with social networking featuring diversity enhanced connection recommendation, polarization index, collective opinion prediction, collective opinion analytics.
- Proposed novel impact measures to quantify the impact of social networks on the formation and evolution of collective opinion in argumentation.
- Created a innovative model of temporal opinion evolution graph in argumentation and quantitatively analyzed the impact of social networks on the formation of outlier opinions in cyber-argumentation.

Skills: Java, Python, Neo4j, Socket.io, Javascript, Numpy, Pandas, Matplotlib, Networkx

Forecasting Volatility of USD/INR

Built LSTM-based deep learning models with dropout, layer normalization, and early stopping. Tuned sequence length (200 timesteps), achieving 98.9% prediction accuracy.
Skills: Python, Keras, Numpy, Pandas, Matplotlib, Time-Series Forecasting

Opinion Stance & Intensity Prediction

Applied regression models (Lasso, Logistic, SVM, Random Forest) with PCA + feature selection. Lasso with PCA (100 features) achieved 99.6% accuracy on cyber-argumentation data.
Skills: Python, Scikit-Learn, Numpy, Pandas, Matplotlib

Citation Network Analytics

Analyzed ACM Citation Network using Weighted PageRank in Apache Spark. Identified top 10 influential papers from large-scale graph data.
Skills: Spark, HiveQL, Hadoop, Scala

AWARDS

Dissertation Research Award, Fall 2023 and Spring 2024.
Best Student Paper, ASONAM 2023, Kusadasi, Turkey.