Shreya Sharma

Amherst, MA | 413-425-3293 | ssharma0@umass.edu | linkedin/shreya-sharma-31aa86215 | github/uchuuronin | uchuuronin.github.io

EDUCATION

Master of Science (MS) in Computer Science | *University of Massachusetts – Amherst*   *Sept 2025 – Sept 2027*
Relevant Courses: Systems for Data Science, Information Retrieval, Statistical Computing   Amherst, MA, USA

B.Tech in Computer Science and Engineering | *Manipal Institute of Technology*   *Aug 2019 – Jul 2023*
Minor: Computer Graphics and Visualization   *CGPA:* 8.69/10 (Equivalent 3.7/4)   Manipal, KA, India
Relevant Courses: Engineering Mathematics, Distributed Systems, Computer Vision, Digital Image Processing, Augmented & Virtual Reality (AR/VR), Multimedia Technologies, Software Testing and Analysis, Human-Computer Interface

EXPERIENCE

Juniper Networks   *Bangalore, KA, India*
Software Engineer I & II   Aug 2023 – Aug 2025
- Contributed to Juniper Mist's cloud-scale RRM (Radio Resource Management) system through anomaly detection and continuous iteration, detecting any issues in the channel, band, bandwidth assignment to access points (APs) across global deployments.
- Expanded anomaly detection with new outlier checks on RRM and AP behavior, improving visibility into poor channels and faulty APs.
- Integrated a Slackbot with Apache Storm topologies to deliver live anomaly spike alerts, giving QA and engineering teams instant visibility.
- Built Elasticsearch dashboards for live anomaly trends, supporting faster root-cause analysis by QA and development teams.
- Applied statistical and probabilistic modeling on $\sim$1 M+ AP time-series records to analyze interference, utilization, and firmware stability.

Juniper Networks   *Bangalore, KA, India*
Software Engineer Intern   Jan 2023 – Jun 2023
- Designed an AP system-panic and reboot-anomaly framework using exploratory data analysis and LSTM-based (Long Short-Term Memory) modeling to uncover low-memory and firmware-related failures.
- Automated monthly reporting in Pandas and PySpark with dashboards summarizing firmware-reboot trends, later scheduled via Airflow and EMR pipelines.

Andritz   *Bangalore, KA, India*
Software Development Intern   Jun 2022 – Jul 2022
- Developed a multithreaded TCP/IP client–server system in C++ for reliable machine–controller communication.
- Improved uptime via START/STOP controls, periodic pings, and automated reconnects under concurrent connections.
- Created dashboards using C#, AJAX, and C3.js for real-time visualization of test performance and diagnostics.

Nebula Cloud Solutions   *Skopje, North Macedonia*
Remote Data Analyst   Jul 2021 – Aug 2021
- Collected and cleaned multi-year weather and pollution datasets using Python, Selenium, and Requests, producing structured time-series data.
- Built visualizations with Tableau, Plotly, and Seaborn to reveal seasonal pollution trends for city-level planning and reporting.

PROJECTS

Impact of Gamification on Online Learning Systems
- Designed a **structural equation model** to study the effect of gamification on self-learning outcomes.
- Conducted empirical analysis using Duolingo and Google Forms.
- *Research project under Pranav S. Joshi (Assistant Professor) with Aditya Gunturu and Akshat Taneja.*

Material Image Classification & Recyclability Prediction
- Developed a recyclable material classifier using **OpenCV** preprocessing and trained a **CNN (TensorFlow)** model to predict recyclability.

Customer Feedback Sentiment Analyzer
- Built NLP pipelines using **TF–IDF** and **LLM-based models** to analyze product review sentiment and summarize customer insights.

TECHNICAL SKILLS

Programming: Python, C++, Java, SQL, HTML/CSS, C++, C#, JavaScript
Data & ML: PySpark, TensorFlow, scikit-learn, LSTM models, Statistical & Probabilistic Modeling, Anomaly Detection
Cloud & Big Data: AWS (EMR, S3), Google Cloud Platform, Apache Storm, Apache Kafka, Apache Airflow, Redis, Elasticsearch
Visualization & Reporting: Tableau, Plotly, Matplotlib, Seaborn, c3.js, AJAX dashboards, Confluence reports
Tools & Other: Selenium, OpenCV, Slackbot API, Git, Blender 3D, Unity Engine, Jira