

Himani Madan

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EDUCATION

University at Buffalo, The State University of New York <i>Master of Science in Computer Science</i> <ul style="list-style-type: none">Courses: Distributed Systems, Computer Security, NLP, Machine learning, Analysis of Algorithms	August 2022 – January 2024 <i>Estimated GPA - 3.67/4.00</i>
Maharshi Dayanand University <i>Bachelor of Technology in Information Technology</i>	August 2014 – May 2018 <i>First Division - Top 5%</i>

TECHNICAL SKILLS

Languages & Frameworks: Python, C#, SQL, Core Java, Javascript, .NET, Angular, Go, Unit testing, HTML, CSS
Tools: Git, Azure Service Bus, Redis, Jira, Splunk, VS Code, Visual studio, Goland, Pycryptodome, Agile development
Machine Learning: Keras, PyTorch, Scikit-Learn, spaCy, NLTK, NumPy, Pandas, AzureML

WORK EXPERIENCE

Research Assistant <i>University at Buffalo, The State University of New York</i> <ul style="list-style-type: none">Working under the guidance of Professor Hongxin Hu on a research foundation for SUNY project that involves advanced video processing techniques for ML models to detect harassment or cyberbullying in virtual reality.	July 2023 – Present <i>New York, USA</i>
Software Engineer Intern <i>CBRE</i> <ul style="list-style-type: none">Applied machine learning methodologies such as XGBoost and Power BI tools to analyze real estate data, successfully predicting construction budgets for property development projects with 88% R-Squared score	June 2023 – Present <i>Texas, USA</i>
Senior Engineer <i>Nagarro</i> <ul style="list-style-type: none">Constructed Azure Topics in multiple services to interact with main service working for granting funds to charityDeveloped HTTP interceptors, and multiple filter grids in Angular to process large volumes of records efficiently and used Lucene indexes and advanced search algorithms to improve the performance of grids by 76%	September 2021 – August 2022 <i>India</i>
Senior Software Developer <i>Quovantis Technologies (acquired by Emids)</i> <ul style="list-style-type: none">Devised advanced transactional capabilities in financial software with a total value of EUR 17 million, transaction reversal functionality leveraging Azure Queues, and accurate invoicing information with zero transactions errorDeveloped a REST API utilizing .NET Core for a healthcare product, serving over 100,000 patients and includes features such as integration with a Redis Cache, email functionality, and generation of precise PDFs	January 2018 – September 2021 <i>India</i>
Machine Learning and Data Science Intern <i>Indian Institute of Technology, Kanpur</i> <ul style="list-style-type: none">Achieved 81% classification accuracy for a dataset of 200 categories, securing 1st rank on Kaggle Competition, by building state of the art Inception algorithm from scratch and also applying transfer learning to ResNet, VGGNet	April 2020 – June 2020 <i>India</i>

ACADEMIC PROJECTS

Clickbait Detection and spoiler generation <ul style="list-style-type: none">Evaluated various diverse deep learning and NLP methods (RoBerta, Bert, LSTM) for clickbait detection across multi, passage, and phrase contexts, achieving a 71% F1 score. Employed T5-based question-answering mechanism to generate spoilers, attaining a 55% BLEU score for phrases, 89% for passages, and 81% for multi-context
Raft algorithm in distributed systems <ul style="list-style-type: none">Implemented Raft algorithm for node leader election and log replication in a distributed environment with Golang. It is based on research paper https://raft.github.io/raft.pdf and used in databases such as CockroachDB

ACHIEVEMENTS & VOLUNTEERING

2021 Secured second rank among 1300 students with silver medal in Big Data computing on national level and in top 5 percentile among 300 students with gold medal in Descriptive Statistical Analysis with R
2018 Led outreach programs as Vice President of the Orators Society, utilizing public speaking skills to teach coding fundamentals to orphanage students