Rachit Chadha

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Education

Georgia Institute of Technology **Expected Dec. 2024**
Master of Science in Computer Science (GPA 3.87) *Atlanta, Georgia*

University of Maryland **May 2020**
Bachelor of Science in Information Science *College Park, Maryland*

Relevant Coursework

- Big Data Analytics
- Algorithms
- Database Systems
- Machine Learning
- Computer Vision
- NLP
- Systems for ML
- Deep Learning
- Data Science
- Cloud Computing

Technical Skills

Languages: Python, C++, JavaScript, SQL, Spark, CUDA, HTML/CSS
Dev Tools: Git, AWS, Azure, GCP, Docker, PowerBI, Tableau, Snowflake, MongoDB, MapReduce
Frameworks: PyTorch, Scikit-Learn, TensorFlow (Keras), Pandas, NumPy, OpenCV, HuggingFace, Transformers

Experience

Graduate Teaching Assistant **Aug. 2024 – Present**
Georgia Institute of Technology *Atlanta, GA*
- Graduate TA for 200+ students in CSE 6242 Data & Visual Analytics co-leading the campus operations.
- Developing & testing machine learning and cloud assignments for edge cases while conducting weekly office hours.

Data Science Co-Op **May 2024 – Aug. 2024**
Turner & Townsend *New York City, NY*
- Utilized predictive modeling and topology to auto-detect asset failures resulting in 25% accuracy increase.
- Developed stored procedures using PL-SQL to facilitate efficient database migration reducing query load time by 15%.
- Lead development of end-to-end PowerBI dynamic dashboard utilizing DAX modeling to present seasonality & forecast.

Data Analyst II **Apr. 2022 – Jun. 2023**
AMCL *New York City, NY*
- Engineered an ETL pipeline & dynamic dashboards, enhancing asset management, impacting over 116K NYC residents.
- Utilized Python, PL-SQL, and PowerBI to design statistical metrics for live monitoring of asset performance and costs.
- Automated real-time climate data extraction using BS4, sk-learn, & MongoDB, adding seasonality to predict impact.

Research Assistant **Aug. 2019 – May 2020**
University of Maryland *College Park, MD*
- Developed an analytics engine playable case study at University of Maryland's HCI Lab with Dr. Elizabeth Bonsignore.
- Utilized Git, Python REST & MySQL to devise a learning analytics system integrating it to the University's AWS cloud.

Analytics Intern **May 2019 – Aug. 2019**
Intel *Singapore*
- Utilized Python, Twitch API and PowerBI to scrape, analyze and visualize data from the Asia-Pacific eSports industry.
- Employed A/B testing and SEO strategies to audit digital marketing content of Intel products on 13 speciality accounts.

Projects

Fine-tuning Transformers for C Programming Challenges | *PyTorch, LLaMA-2, LoRA, QLoRA, CFG* **Jun. 2024**
- Fine-tuned transformer models using a custom dataset of LeetCode C challenges, implementing quantization and CFG.
- Improved syntax accuracy, reduced compilation errors by 21%, achieving a 73% success rate with optimized GPU performance.

Product Growth Study: Payouts and Forecasting | *Time-series Prophet model, Pandas, NumPy, Seaborn* **May 2024**
- Developed a comprehensive analysis and forecasting model for Stripe Connect payouts using Python and Prophet model.
- Employed time-series and wrangling techniques to predict payouts, providing strategic insights into platform growth.

Project Tidal: Real-Time Geospatial Analytics App | *JavaScript, Python, MongoDB, Node.js, PySpark* **Feb. 2024**
- Real time site identification tool: Awarded overall winner at Georgia Tech Hackathon amongst 1100+ participants.
- Utilized geospatial analytics & modeling to forecast tidal power as a key to curbing rising energy costs and emissions.

Data Pre-processing & Pruning for Automated Vizualizations | *Pandas, NumPy Sk-Learn, SciPy* **Oct. 2023**
- Developed an automated data pre-processing tool for mechanistic data cleaning & interestingness based Pruning.
- Authored a research paper that elaborates on its capabilities in managing missing data, outliers, and encoding features.