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

- Database Systems
- Data Structures
- Deep Learning
- Machine Learning
- Computer Vision
- Natural Language
- Visual Analytics
- Web Applications
- Data Science
- Cloud Computing

Technical Skills

Languages: Python, JavaScript, SQL, HTML/CSS
Developer Tools: VS Code, PowerBI, Tableau, AWS Redshift, AWS Athena, GCP, Microsoft Azure ML, Spark, Docker
Technologies/Frameworks: PyTorch, Pandas, Numpy, REST, Git, tensorflow, Scikit-Learn, MongoDB, Flask, Node.JS

Experience

Georgia Institute of Technology | **Present**
Graduate Teaching Assistant | *Atlanta, GA*
- Graduate TA for 250+ students in CSE 6242 Data & Visual Analytics focusing on development of Big Data coursework.

Turner & Townsend | **May. 2024 – Aug. 2024**
Data Engineering Co-Op | *New York City, NY*
- Developed and implemented stored procedures using Oracle PL-SQL to facilitate migration of data to a new database.
- Utilized Python & predictive models for data extraction and transformation to forecast completion of individual assets.
- Collaborated with cross-functional teams to delivering actionable insights utilizing dynamic PowerBI dashboards.

AMCL | **Apr. 2022 – Jun. 2023**
Technical Consultant - Data Engineering & Analytics | *New York City, NY*
- Independently created ETL pipeline & deployed dynamic dashboards as a one-stop-shop product improving NYC Housing Authority's $3.1M asset management capabilities affecting 116,000 residents.
- Incorporated scripts using Spark, Python, PL-SQL and PowerBI DAX for designing statistical metrics to track real time asset outage, performance & cost, generating valuable insights.
- Utilized BS4, Scikit-learn, Pandas and MongoDB to automate real time scraping of precipitation information & IBM Maximo data to predict impacts and cluster asset condition information into simiarity groups.

University of Maryland | **Aug. 2019 – May 2020**
Research Assistant | *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.

Intel | **May 2019 – Aug. 2019**
Analytics Intern - eSports | *Singapore*
- Utilized Python, Twitch API and PowerBI to scrape, analyze and visualize data from the APAC eSports industry.
- Collaborated with UX and marketing teams of APJ and ANZ to audit the digital marketing content of Intel products on 13 specialty accounts for A/B testing via HTML/CSS, JavaScript and SEO strategies.

Projects

Project Tidal Web App | *JavaScript, Python, MongoDB, Node.js, Spark* | **Feb. 2024**
- Awarded overall winner at Georgia Tech Hackathon amongst 1100+ participants.
- Developed a real time site identification tool for tidal energy to enhance wave energy adoption and reduce emissions.
- Utilized geospatial analytics to forecast tidal power as a key to curbing rising energy costs and emissions.

Multimodal Sketch to Image Generation | *PyTorch, TediGAN, TextCLIP, ControlNET* | **Dec. 2023**
- Developed a multimodal pipeline integrating sketches and textual descriptions for high-fidelity facial image generation.
- Engineered a novel one-shot diffusion model to improve the accuracy and detail of generated facial images, significantly enhancing forensic and creative applications.

DataCleaner Python Library | *Pandas, NumPy Sk-Learn, SciPy, Seaborn, PySpark* | **Oct. 2023**
- Developed an automated data pre-processing library for mechanistic Data Cleaning & Interestingness based Pruning.
- Published a research paper that elaborates on its capabilities in managing missing data, outliers, and encoding features.