# Rachit Chadha

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## EDUCATION

**Georgia Institute of Technology (GPA 4.0)** Aug 23' - Present
- MS. in Computer Science, Machine Learning Specialization
- Distinction Courses: Machine Learning, Deep Learning, Computer Vision, Natural Language, Data & Visual Analytics, Data Visualization
- Extra-Curriculars: MLH Hackathon Winner - GT Hacklytics, Data Science Georgia Tech (DSGT), Energy Club at Georgia Tech

**University of Maryland** Aug 16' - May 20'
- B.S in Information Science, Data Science Specialization
- Academic Honors
- Distinction Courses: Data Science Techniques, Database Design & Modeling, Dynamic Web Applications, Object-Oriented Programming, Decision Making Analysis, Cloud Computing, Technology Infrastructure & Architecture, Data Visualization

## EXPERIENCE

**Senior Data Analyst | Turner & Townsend** Apr 22' - Jun 23'
New York, USA
- Lead data analytics for capital projects with the US Department of Housing & Urban Development to monitor NYC Housing Assets
- Independently created & deployed dynamic dashboards as a one-stop-shop product to improve NYC asset management capabilities
- Data migration & manipulation with PowerBI, SQL & Python for designing performance metrics to track asset outage, performance & cost
- Automated scraping of precipitation data and predicting impacts, along with clustering asset conditions into similarity groups with SkLearn

**Analytics Engineer| Aegis Project Controls** Aug 20' - Mar 22'
DC, USA
- Crafted automated Dashboards using PowerBI DAX & Power Pivot to generate insights and forecasts on project health, cost & schedule
- Engineered Python scripts for efficient data extraction sourcing from P6 & MS SQL servers to a cloud environment
- Incorporated Time Impact and Monte Carlo analysis for robust project risk assessment and decision-making for engineering projects
- Independently led A/B testing and client training, focusing on dynamic dashboard functionalities and product demonstrations

**Research Assistant | University of Maryland** Aug 19' - May 20'
Maryland, USA
- Analytics Engine Playable Case Study at University of Maryland's HCI Lab with Dr. Elizabeth Bonsignore and Dr. Phil Piety, funded by NSF
- Devised a learning analytics system with Python REST API & MySQL integrated to the University's AWS infrastructure
- Spearheaded a research initiative to scrape, visualize & present game mechanics' data to BYU & Indiana partner universities

**Marketing Analyst Intern, eSports | Intel** May 19' - Aug 19'
Singapore
- Formulated project plan for Intel Extreme Masters 2020 to increase reach across Asia Pacific's 40 million eSports viewers
- Scraped, analyzed & visualized data from the eSports industry via Python, Twitch API & Power BI to generate actionable insights
- Developed, managed & executed 2 product strategy campaigns for APJ & ANZ regions within the Games & eSports Marketing team
- Collaborated with UX and marketing teams of APJ and ANZ to audit the digital marketing content of Intel products on 13 specialty accounts

**Other Experience:** Program Ambassador at UMD iSchool, Teaching Assistant at University of Maryland, Market Research Intern at HP Inc.

## PROJECTS

**Project Tidal: Real Time Site Identification for Tidal Wave Renewable Energy**
*Overall winner - MLH Hackathon - Georgia Tech*
- Spearheaded the development of an innovative geospatial computation and analytics to forecast real-time tidal energy potential, enhancing renewable energy adoption and emissions reduction, awarded overall winner at GT Hackathon amongst 1100+ participants.
- Utilized a robust tech stack including MongoDB, Node.js, AWS S3, Athena & Lambda, Mapbox.JS, and Python for real-time data processing and visualization, contributing to the decision-making processes of governments, corporations, and renewable energy stakeholders.

**Inter Language Font Style Transfer - Deep Learning**
- Developed a solution to translate visual text within the real world and other media, preserving the original style, color, and font of the text.
- Utilized cGAN models like Pix2Pix and CycleGAN for style transfer between Japanese and English characters, achieving seamless integration into the original media.

**Sign Language Detection - Computer Vision**
- Developed a model to detect live ASL hand signs, captured on webcam and trained using Tensorflow Keras.
- Used OpenCV library for efficient data collection, image transformation, and model testing.

**Customer Churn - Supervised Learning**
- Performed data cleaning & feature engineering using Python Scikit-learn & TensorFlow to classify the churn rate of Telco customers.
- Used supervised learning models such as Light GBM, Logistic Regression & Support Vector Classifier.

**SEM Web Analytics - Exploratory Data Analysis**
- Analyzed user data for an e-learning platform using Python's NumPy, Pandas, Seaborn & Matplotlib libraries.
- Generated insights for increasing user engagement by tracking web KPIs such as churn rate, bounce rate, page exits, visits, searches, etc.

**DataCleaner: Advanced Data Processing Tool - Research Paper**
- Developed a data preprocessing tool, showcased in an academic paper detailing its efficacy in improving data quality and ML outcomes.
- The paper elaborates on its capabilities in managing missing data, outliers, and encoding features, bolstering visualizations and analysis.

## SKILLS & CERTIFICATIONS

**Languages:** Python (PyTorch, TensorFlow, Scikit-Learn, PySpark, Numpy, Pandas, Matplotlib, Flask, BS4), JavaScript (D3.js, Node.js, Mapbox.js)

**Skills:** Machine Learning, Computer Vision, NLP, Data Visualization (Tableau, PowerBI, D3, Gephi), Database (T-SQL/PL-SQL, MongoDB, Spark), Cloud Computing (Azure, AWS, GCP, DataBricks), Web Dev (HTML/CSS, Web Scraping, Git, Web Analytics), Technical Consulting

**Certifications:** Certified Asset Management Professional (IAM), Oracle Project Management (Primavera), Digital Marketing (Google)