Georgia Institute of Technology	Dec. 2024
Master of Science in Computer Science (GPA 3.9/4.0)	Atlanta, Georgia
University of Maryland	May 2020
Bachelor of Science in Information Science	College Park, Maryland
Relevant Coursework	
 Algorithms Big Data Systems Machine Learning Data Science Cloud Computing Systems for ML Data Visualization 	Computer VisionNLP
Technical Skills	
 Languages: Python, R, JavaScript, MS-SQL, Oracle SQL, Spark, Hadoop, HTML/CSS Dev Tools: Git, AWS, Azure, GCP, Docker, PowerBI, Tableau, Excel, Jupyter, Snowflake, Mon Frameworks: PyTorch, Scikit-Learn, Pandas, NumPy, Plotly, LLMs, LangChain, Recommendation Experience 	goDB on Systems, A/B Testing
Data Scientist	May 2024 – Present
Turner \mathfrak{C} Townsend	New York City, NY
• Engineered advanced risk models using Python (Prophet, XGBoost, SVM), boosting prediction	accuracy by 25% .
• Optimized Oracle SQL stored procedures to streamline database migration, reducing query load	l times by 15% .
• Led the deployment of dynamic, end-to-end PowerBI dashboards with DAX modeling, effectivel	y visualizing KPIs.
• Utilized Oracle Fusion data structures and built complex OTBI and BI reports to deliver key of	perational insights
Graduate leacning Assistant	Aug. $2024 - \text{Dec. } 2024$
Georgia Institute of Technology	Atlanta, GA
• Graduate 1A for 200+ students in CSE 0242 Data & visual Analytics co-leading the campus of • Lead development of PyTorch, SQL, and Docker assignments, testing edge cases while conductiv	perations for ML Ops.
Senior Data Analyst	$\Delta \mathbf{pr} = 2022 - \mathbf{Jun} = 2023$
	New York City NV
• Engineered a ETL pipeline & dynamic dashboards enhancing asset management impacting over	er 116K NYC residents
• Utilized Python EDA, T-SQL, and PowerBI to design statistical models (Monte Carlo) for live :	monitoring of revenue.
• Automated real-time climate data extraction using BS4, sk-learn, ARIMA & seasonal decompos	ition to predict impact.
Analytics Engineer A	ug. 2020 – Mar. 2022
Aegis Project Controls	Washington, DC
• Utilized PowerBI, SQL, and CPM software to analyze project data, build dashboards, and prov	ide real-time insights on
carbon footprint, vendor orders, resource utilization, and timelines via time-impact, Monte Carl	o and risk analysis.
• Drove data-driven strategies & cross-collaboration by utilizing A/B testing and causal inference	across multiple sectors.
Analyst, eSports	May 2019 – Aug. 2019
Intel	Singapore
• Presented analytical insights to formulate a data-centric strategy for Intel Extreme Masters Syd	ney 2020 , aiming to

expand its engagement with the 40 million eSports audience in the Asia Pacific region.

• Utilized Python, Twitch API and PowerBI to scrape, analyze and visualize data from the APAC eSports industry.

Projects

Calibration-Driven Sparse Attention Fine-Tuning in LLMs | PyTorch, LoRA, LLaMA-3, Mistral, GPU Optimization

- Co-authored a research paper introducing C-SAF, a novel method for parameter-efficient fine-tuning (PEFT) of LLMs.
- Developed a fine-tuning framework that reduces LoRA adapter sizes by **75%**, achieving a **23% speedup** in inference.
- Engineered a selective fine-tuning pipeline that calibrates attention layers to optimize memory, reducing GPU usage 20%.

Project Tidal: Real-Time Geo-spatial Analytics Web-App | Python, MongoDB, Node.js, Spark, AWS EC2, S3, Athena

- Real time cost 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.

Fine-tuning LLMs for C Programming Challenges | PyTorch, LLaMA-2, LoRA, QLoRA, CFG, Docker

- 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 83% success rate with GPU optimization.

Product Growth Study: Payouts and Forecasting | Time-series Prophet model, Pandas, NumPy, Seaborn

- 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.