Anjani Ganapathy

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WORK EXPERIENCE

SPAR Solutions   **Atlanta, GA** | *Sept 2025 - Present*
Technical Product Manager
Knowledge-First AI Productized Service

- **Defined and executed product vision to achieve market-readiness:** Designed diagnostic framework using 20+ measures to evaluate clients' knowledge bases. Directed development of this work, established methodology and tooling (LangChain, BERTopic, OntoLearner, GPT), and evaluated output to inform remediation actions.
- **Designed LLM-powered remediation workflows with quality guardrails:** Defined remediation actions, developed prompt strategies for content optimization, and established risk- and usage-based validation frameworks. Created an evaluation workflow using a simulated RAG system to monitor remediated content quality and measure performance improvement.
- **Delivered client POC within 1-month timeline:** Rapidly executed development and application of 10 metrics by synthesizing computational linguistics expertise with emerging LLM capabilities. Collaborated cross-functionally to balance technical feasibility and quality with business requirements under tight timelines.

Capital One   **Washington, DC** | *Aug 2019 - Oct 2023*
Data Analysis Manager (Data Product Owner) | Card Data Infrastructure
Snowflake Depersonalized Data Ecosystem (DepEco)

- **Defined product direction with stakeholder input:** Translated business needs to actionable tasks for product and tech teams and regularly communicated product updates to senior leadership (VP+). Refined product end state vision and managed execution for key improvements like real-time updates to DepEco datasets.
- **Coordinated cross-functional delivery:** Facilitated collaboration and aligned priorities across product, tech, and data science teams. Mitigated dependencies and risks in DepEco by escalating and resolving issues like a data transfer gap that resulted in a 2% improvement in DepEco data completeness.
- **Established data validation & customer support:** Led team of 5 to ensure data quality, proactively identify issues, and escalate customer needs. Created and managed DQ checks in AWS Quicksight, enabling escalation and recovery of missing data (5%) in critical datasets.
- **Led product adoption to unlock business value**: Created documentation and led training for >100 analysts which facilitated use of external data in critical valuation and decisioning models estimated to generate >$250M in revenue.

Principal Data Analyst (Product Focus) | Card Data Infrastructure
Credit Policy Analysis Simulation Tool

- **Led product development & user onboarding**: Wrangled large datasets to create a central tool using Python for more consistent and faster simulation of credit policies on card applicants and experimental A/B testing for credit policy changes; onboarded >75 analysts.

Automated Card Customer Performance Reporting

- **Re-designed and executed suite of reports:** Created a robust automated pipeline to generate reports on the performance of 150+ experimental credit card customer segments, along with alerts for underperforming segments.

Senior Data Analyst | Bank Marketing Experience
Digital-First Email Marketing Experimentation

- **Optimized campaigns with data-driven insights**: Produced Tableau dashboards to evaluate customer engagement with email marketing campaigns and identify drop-off points. Designed experiments to test email changes that improved consumer adoption of digital-first banking strategies (paperless billing increased by ~40%).

EDUCATION

UNIVERSITY COLLEGE LONDON, Faculty of Brain Sciences   **London, United Kingdom**
Masters in Computational Linguistics   *Sept 2025*

GEORGIA INSTITUTE OF TECHNOLOGY, College of Engineering   **Atlanta, Georgia**
Bachelor of Science in Industrial and Systems Engineering   *May 2019*

SKILLS

- **Programming Languages + Packages:** Python, Pandas, PyTorch, TensorFlow, NLTK, SQL, R, HuggingFace, Sklearn, matplotlib, WandB
- **Platforms & Frameworks:** Github, Snowflake, Tableau, AWS Quicksight & S3, Jira, APIs (Reddit, HuggingFace, OpenAI)
- **Languages:** English – native, Tamil – native, Hindi – native, Spanish – advanced

SELECTED RESEARCH & PROJECTS

Vector-Quantized VAEs for Unsupervised Part-of-Speech Induction

Dissertation Research in Computational Linguistics

- **Developed first neural unsupervised POS tagging baseline for Hindi:** Achieved 47.41% Many-to-One accuracy using custom VQ-VAEs with Gumbel-Softmax discretization. Designed novel architecture combining MuRIL BERT embeddings with character-level learned representations to capture morphological features in Hindi's free word order.
- **Conducted ablation studies to test efficacy of standard assumptions and model components:** Disproved standard Bi-LSTM assumption for languages with flexible syntax; proved feed-forward decoders more effective for Hindi (25% accuracy improvement).
- Technologies/methods: PyTorch, HuggingFace Transformers, Universal Dependencies treebanks, custom VQ-VAE implementation

Neural Machine Translation for Code-Mixed Hinglish

NLP Seminar Project

- **Built end-to-end seq2seq NMT system using LSTM architecture**: Achieved low training losses (4.28 to 0.82) through thoughtful architecture design, including proper sequence token handling and dropout regularization.
- **Unique challenges of code-mixed NMT led to unfavorable results**: The combination of dataset size, romanization variations, informal social media text, and lack of standardized orthography resulted in a difficult to train model.
- Technologies/methods: PyTorch, NLTK, custom attention mechanisms, cross-entropy loss optimization