

Md Samshad Rahman

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Technical Skills:

Python, SQL, Machine Learning, Fine-Tuning Large Language Model (LLM), NLTK, spaCy, Scikit-learn, Regression Analysis, Google Cloud NLP, IBM Watson, FastAPI, Django, Flask, Celery, SQLAlchemy, REST API, PostgreSQL, MongoDB, DynamoDB, React.js, Tailwind CSS, AWS Lambda, AWS EC2, API Gateway, CloudWatch, CloudFormation, Git, Docker, Web Scraping, BeautifulSoup, Selenium, Tableau, Looker Studio

Selected Academic Experience:

Dalhousie University, Halifax, Nova Scotia

AI-Powered Mindful Eating App (Persuasive Computing Lab) [January 2025 – April 2025]

- Orchestrated a full-stack mobile app (React Native, FastAPI) delivering AI-generated dietary tips tailored by Big Five personality traits and eating behavior.
- Fine-tuned two Meta Llama 3.2 models using LoRA + Unsloth on Google Colab (T4 GPUs):
 - Predicting Big Five personality traits from user questionnaire data.
 - Tip-generation LLM achieving ~88% user-rated relevance in pilot studies.
- Curated 1,500 expert-validated coaching tips mapped across 10 eating behaviors × 5 traits using ChatGPT-4, dietitian & psychologist feedback.
- Built backend with RESTful APIs for user auth, personality profiling, food logging (text/image), and real-time chat with LLM.
- Trained classifier on 2,467 essays using Symanto's NLP API.

Awarded Public Tenders Analysis Dashboard (Visual Analytics) [September 2024 – December 2024]

- Developed an interactive Python Dash app enabling ~40% faster public procurement analysis.
- Applied BERTopic for unsupervised clustering, boosting trend detection accuracy by ~30%.
- Enhanced insight clarity via customized Plotly visualizations and cleaned datasets (~35% noise reduction).

Serverless Sentiment Analysis for Hotel Customer Feedback [June 2024 – August 2024]

- Designed a serverless architecture using AWS Lambda, DynamoDB, and Google Cloud NLP for real-time sentiment classification (~98% accuracy).
- Reduced management overhead by ~50% and cost by ~30% through a scalable no-server backend.
- Integrated seamlessly with frontend (React.js) via API Gateway for real-time feedback updates.

Related Professional Experiences:

Jr. Python Developer at Smartbytes Ltd. Bangladesh

[February 2022 – September 2022]

Resume Matching with Job Descriptions

- Engineered a resume-job matching system using NLP (spaCy, NLTK), LinearSVC classification, and TF-IDF pipelines.
- Increased dataset size by ~40% via web scraping and enrichment; improved NER accuracy by ~30%.
- Collaborated with frontend developers to deliver clean APIs and technical documentation.

Research Assistant, Cognitive & Behavioral Data Science Lab, UI University, Bangladesh [October 2021 – March 2022]

Eating Preference Analysis Based on Human Personality Traits

- Conducted data scraping via a rotating proxy pipeline, overcoming IP blocks and latency challenges.
- Built efficient storage via set structures; achieved O(1) retrieval using caching mechanisms.
- Improved personality-dining predictions by ~30% using Big Five analysis via IBM Watson.

Additional Experience:

Appliances and Home Solutions Advisor, Best Buy Canada Ltd. Halifax, NS [October 2023 – Present]

- Contributed ~29% of total department revenue last fiscal year with only 20 hrs/week workload.
- Outperformed store average by ~35% in revenue/hour; #1 in sales efficiency across entire store.
- Led BBP (Best Buy Protection Plan) attachment rates and achieved ~8.10% MCF fulfillment rate.
- Delivered personalized customer experiences, managing the full sales lifecycle including product demos, MCF processing, and post-sale service.
- Drove customer loyalty and recurring revenue with a Best Buy Membership (BBM) attachment rate placing in the top percentile of the team.
- Provided expert consultation to customers on appliances, home solutions, and smart living products, identifying needs to deliver optimal solutions within budget.
- Managed full sales cycle including customer engagement, product demonstration, closing sales (including processing MCF orders), processing returns, and handling online order setups and pickups.
- Trained new hires and improved departmental operations via proactive leadership and initiative.

Key Skills Demonstrated:

- Consultative Sales & Customer Relationship Management
- Effective Communication & Active Listening
- Problem-Solving & Solution-Oriented Thinking
- Initiative & Proactive Task Management
- Team Collaboration & Mentorship
- Inventory & Operations Management
- Time Management & Prioritization (especially balancing part-time work with studies)

Education:

- **Master of Applied Computer Science** [September 2023 – May 2025]
Dalhousie University, Halifax, NS
- **Master's in Applied Statistics and Data Science** [November 2019 – April 2022]
Jahangirnagar University, Bangladesh
- **BSc. in Computer Science and Software Engineering** [January 2015 – January 2020]
American International University-Bangladesh