

Humayun Kayesh

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EDUCATION

Griffith University, Australia	Jun 2022
PhD in Natural Language Processing and Deep Learning	
The University of Manchester, UK	Sep 2017
MSc. Advanced Computer Science	Overall GPA: 78% (Distinction)
University of Dhaka, Bangladesh	Jan 2013
Bachelor of Information Technology	Overall GPA: 3.82/4.0

WORK EXPERIENCE

Machine Learning Engineer	Jun 2022 – Present
<i>Robotic Marketer Ltd., Melbourne, Australia</i>	
• Architected an ML-based direct marketing platform from scratch, handling thousands of data points • Developed an AI-powered content generation engine and exposed it through a REST API • Created an image generation platform that enables users to reliably generate brand-specific content • Designed and supervised the development of a CRM system featuring lead pipeline tracking and management • Developed serverless applications to automate website scraping, data extraction, and analysis • Fine-tuned and integrated GPT models to automatically generate customized content • Designed and implemented REST APIs using Flask, Redis Queue, and Python to support front-end applications	
Research Assistant (Part-time)	Jul 2021 – Apr 2022
<i>Healthcare Logic Pty Ltd., Gold Coast, Australia</i>	
• Designed and developed a machine learning (ML) model for hospital length-of-stay (LoS) prediction, outperforming the existing model by at least 47% in a baseline scenario • Experimented, analyzed, and evaluated several machine learning models for regression • Developed a patient arrival rate prediction model for hospitals	
AI Research Engineer (Part-time)	Jun 2020 – Sep 2020
<i>DeepCognito Ltd., Manchester, UK</i>	
• Designed, implemented, and evaluated the performance of several machine learning models for continuous learning • Implemented several core components of an existing continuous learning framework in Python • Designed and implemented a database similarity measurement approach to improve data retrieval and processing accuracy	
Software Engineer (Part-time)	Oct 2017 – Mar 2018
<i>DeepCognito Ltd., Manchester, UK</i>	
• Developed a conversational AI chatbot using RASA and ML that can answer user queries. • Extracted topics and associated sentiments from patient feedback comments. • Completed an ML model to detect sentiment in news articles.	
Software Engineer	Dec 2015 – Aug 2016
<i>Jaxara IT Limited, Dhaka, Bangladesh</i>	
• Transformed client requirements into requirement specifications. • Designed and set up system architecture by following standard practices. • Applied tools such as Drupal, Jira, and Git for implementation and documentation.	
Software Engineer	Jun 2013 – Mar 2015
<i>Nascenia IT, Dhaka, Bangladesh</i>	
• Developed a betting-related PHP web application that requires REST API integration. • Integrated the social media login API to a web application.	

TECHNICAL SKILLS

- **Python:** data manipulation with numpy and pandas, data mining with keras, scikit-learn, visualization with matplotlib, and web application with Django;
- **Generative AI:** content generation using the GPT, Claude, OpenRouter, DeepSeek APIs, finetuning GPT-3, text similarity with the OpenAI Embeddings model
- **TensorFlow/PyTorch:** machine learning model architecture design, deep learning
- **AWS:** EC2, API Gateway, Lambda, CodeCommit, CodeDeploy, DynamoDB, S3, SQS
- **ElasticSearch/OpenSearch:** Semantic similarity, information retrieval, indexing
- **SQL:** database design and integration
- **MongoDB:** storing and retrieving large datasets, schema validation;
- **R:** dplyr, NLP, tm
- **C/C++:** desktop applications
- **PHP:** web application development, REST API

LEADERSHIP

- Worked as a Secretary of Griffith University Bangladeshi Association Gold Coast (GUBAGC)
- Co-founded Dhaka University IT Society (DUITS) that provides IT support to students
- Lead a team of software developers, ensuring top-quality outputs and a learning and growing environment