

Sharon Dev Saseendran

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SKILLS

Languages: Java EE · Python · JS · SQL

MLOps: PyTorch · LangChain · llamaindex · Pinecone

Technologies: Flutter · Flask · Spring Boot · FastAPI · VITE · PostgreSQL · ElasticSearch · Redis · Azure · GCP

WORK EXPERIENCE

University at Buffalo, SUNY

Jan 2025 – Present | Buffalo, NY

Graduate Research Assistant — 3D Human Modeling

Transformer | Pytorch

- Collaborating with Prof. Ifeoma and researcher Lu Dong to benchmark **FLAME** and **SMPL-X** parametric models on the DAiSEE affect-recognition dataset,
- Engineered an **VideoAffectTransformer** pipeline that uses **655-D** tensor combining extracted 3D features from EMOCA-Inferno & OSX models on 60 key-frames/clip from DAiSEE dataset and leverage multi-head classifier to predict Engagement, Boredom, Confusion (**70.1%**) and Frustration (**78.2%**)—surpassing single-model baselines.

Moonraft Innovation Labs (acquired by UST)

Feb 2023 - July 2024 | Bangalore, India

Developer 1

Spring Boot | Flask | Flutter | FlutterFlow | ElasticSearch | Pinecone | ETL | MongoDB

- Delivered a cross-platform Flutter mobile app for a UK-based mortgage client, scaling MVP to production for **65k+** users and achieved **85%** crash-free sessions in Android and iOS post-release through Flutter performance profiling with GA and FlutterFire.
- Implemented app launch animations and custom widgets, reducing UI latency by **45%** and improving **TTI by 1.8s**.
- Integrated Equifax credit score dashboards used by over **60% of daily active users** to assess mortgage eligibility, reducing drop-off during pre-approval flow by 35%.
- Built a plug-and-play semantic search module for corporate websites, cutting information retrieval time by **60%** for **500+ users**.
- Deployed a Spring Boot backend that supported upto **20 concurrent scraping/indexing jobs daily**, with retry mechanisms and job monitors for uninterrupted data flow.
- Built an intuitive admin UI to trigger and track ETL workflows for site updates, enabling reduced **setup time of the website indexing as low as 2-3 days**.
- Contributed to the DL Vision team of a Product Comparison Engine for ecommerce platforms, generating embedding for over 50K products for similarity-based search across multiple ecommerce brands.
- Led a 3-member ETL team to scrape, clean and enrich **50K+** product listings.

Microsoft

Aug 2021 - Feb 2023 | Hyderabad, India

CSA-Engineering

Microsoft Intune | Azure AD | MECM | Microsoft Defender

- SME for Microsoft Intune, Azure AD, and MECM, helping 70+ enterprise clients manage and secure over **200K+ endpoints**.
- Responsible for training, advisory, and building POCs for premier customers on M365 and Azure.
- Trained 100+ engineers in Microsoft security practices, boosting client-side resolution rate by **15%**.

EDUCATION

University at Buffalo, State University of New York

New York, United States

Masters in Computer Science (Specialization in AI/ML)

August 2024 - present

Cumulative GPA: 3.75/4

Relevant Coursework: Machine Learning · Deep Learning · Data Modeling and Query Language · Algorithms

ACADEMIC PROJECTS

ECHO (Engaged Conversation with Human Oversight) Chat

2025

- Developed a retrieval augmented generation backend allowing Q&A based a user's profile or any documents, implementing real-time streaming responses with session-based conversation memory using Google Gemini 2.0 Flash and llamaindex.
- Built prod-ready FastAPI backend with LlamaIndex RAG framework, Google GenAI text-embedding-004 for semantic search, async document processing pipeline supporting PDF/DOCX/TXT formats and deployed with Azure Container Apps.

Visual Question Answering for Real-world accessibility

2025

- Developed a VQA system for real-world images, addressing challenges like blur, and poor lighting from the VizWiz dataset.
- We combined the pre-trained CLIP ViT-B/32 vision-language encoder and a trainable lightweight multi-head classifier to generate textual answer predictions with a test acc. of approx. **70%**.