ANUSHREE ASHOK KUMAR BANNADABHAVI

Toronto, Ontario • LinkedIn • Github • anushree.bannadabhavi@gmail.com • +1 (778) 251-6910

PROFESSIONAL EXPERIENCE

ARTERIA AI — **Toronto, Ontario**
NLP Data Scientist — **September 2023 - Present**

- Developed an AI-based solution using fine-tuned multimodal NER and sentence transformer models to extract 12 entities from unstructured financial documents. Achieved >90% accuracy across 1.9M entities processed in 6 months of operation, saving the client 3000 person-hours.
- Led the design and development of Arteria platform v2.0, collaborating with data science, product, and backend teams to add new AI features such as topic classification, entity extraction, and custom RAG pipelines, enhancing platform functionality and user experience.
- Led the team's first co-op hiring initiative, oversaw the process and conducted 30+ interviews. Mentored interns, resulting in two receiving return offers.

UNIVERSITY OF BRITISH COLUMBIA — **Vancouver, BC**
Graduate Research Assistant — **May 2022 - April 2023**

- Developed a novel transformer architecture for Autism prediction, achieving 72.5% accuracy and surpassing state-of-the-art models on the ABIDE dataset. Findings accepted at MICCAI 2023 (Acceptance rate: 30%) and OHBM 2023 conferences [Publication][GitHub].
- Implemented fault injection mechanism for BERT, GPT and T5 models in LLTFI to evaluate LLM resilience against transient hardware faults. The study confirmed significant fault tolerance and robustness [Paper][GitHub].
- Improved LLTFI - Added comprehensive documentation, built an auto installer tool, added docker support to enable ease of installation and setup, added regression tests for both vision and NLP models.

TOSHIBA — **Bangalore, India**
Software Engineer — **July 2018 - March 2021**

- Ported Toshiba's Image Processing Accelerator (IPA) library from C to CUDA, enabling GPU-based replication of Visconti chip functionalities. The IPA software expanded market reach, securing 2 new automotive clients.
- Optimized stereo matching and pyramid modules, reducing the execution time from ~105 ms to ~5ms.

ROBERT BOSCH — **Bangalore, India**
Associate Software Engineer — **July 2015 - June 2018**

- Led the development of tuner features for car infotainment systems - a mixed preset list of radio stations and online/offline personalization capabilities, significantly enhancing user engagement by 32%.
- Designed, implemented, and tested the configuration library. The config library increased code readability and modularity, thereby reducing bugs in the component by ~27% and development time for new features by 20%.

PROJECTS

Data-Efficient TensoRF - NeRF — **January 2023 - April 2023**

- Engineered 'DE-TensoRF', data-efficient TensoRF, achieving high-quality 3D reconstruction with 3 images (vs. 100) by incorporating symmetry, semantic conditioning and semantic loss techniques [Report][GitHub].

Spatial inpainting for human motion prediction — **January 2022 - April 2022**

- Developed a GAN-based architecture with a VAE generator and RNN discriminator to accurately predict human motion trajectories from incomplete skeletal joint data, addressing occlusions and mislabeling issues in existing datasets [Report][GitHub].

SKILLS

- **Languages & Frameworks**: Python, PyTorch, Tensorflow, C++, C, CUDA C, Java, scikit-learn, pandas, NumPy.
- **Deep Learning Architectures**: Transformers, LLM, BERT, GPT, T5, CNN, NeRF, VAE, GAN.
- **Tools/Technologies**: HuggingFace, Langchain, Qdrant, MLflow, Docker, AWS, GCP, Git.
- **Open source contributions**: Haystack

EDUCATION

M. Eng. Computer Engineering, University of British Columbia, Canada - 92.4% — **September 2021 - April 2023**
B. Eng. Electronics and Communication Engineering, SJCE Mysore, India - 9.46/10 — **September 2011 - May 2015**