

SUDARSHAN ANAND

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Portfolio: sudarshanand14.vercel.app | F-1 OPT (2026–2029)

EDUCATION

Georgia Institute of Technology

Master of Science in Computational Science and Engineering (CGPA: 4.0/4.0)

Atlanta, GA, USA

May 2026

Birla Institute of Technology and Science (BITS Pilani)

Master of Science in Mathematics and Bachelor of Engineering in Computer Science (CGPA: 9.4/10)

Pilani, Rajasthan, India

Aug 2024

TECHNICAL SKILLS

Programming & Data: Python, SQL, Pandas, NumPy, PostgreSQL, Neo4j, Git, Linux/Unix

Machine Learning & AI: PyTorch, Unsloth, multimodal learning, computer vision, self-supervised learning, LLM applications, retrieval-augmented generation (RAG), prompt engineering, time-series foundation models, transformer architectures, model fine-tuning, model evaluation, inference optimization, feature engineering, A/B testing, statistical modeling

Systems & Infrastructure: FastAPI, Pinecone, ChromaDB, GCP, SLURM, scalable ML pipelines, cloud deployment, API development, backend systems, ML workflow automation, CI/CD, production ML systems

Data Science & Analytics: Data preprocessing, exploratory data analysis (EDA), performance optimization, predictive modeling, longitudinal data analysis, unstructured data processing

Professional: Cross-functional collaboration, stakeholder-facing collaboration, technical documentation, research communication, project leadership

PROFESSIONAL EXPERIENCE

AI Product Development Intern

Jun 2025 – Aug 2025

Rezolve.ai

Dublin, CA, USA

- Built an enterprise AI search assistant (RAG-based) that reduced manual policy lookup effort by integrating FastAPI, Pinecone, and PostgreSQL to support contextual retrieval and follow-up question generation.
- Improved search responsiveness for enterprise knowledge discovery by developing a low-latency autocomplete pipeline with personalized and AI-generated suggestions deployed on GCP Cloud Run.
- Prototyped an LLM-based incident triage assistant that converted noisy infrastructure alerts into structured response workflows for IT support operations.

AI Scientist Intern

Jan 2024 – Jun 2024

Qure.ai Technologies Pvt. Ltd.

Bangalore, Karnataka, India

- Improved clinical lung nodule prediction consistency by ~45% over prior internal baselines through PyTorch-based computer vision model optimization.
- Evaluated model stability across longitudinal imaging studies to validate deployment readiness for clinical workflows.

RESEARCH AND PROGRAMMING PROJECTS

Multimodal Progression Tracking of Neurodegenerative Disorders, Georgia Institute of Technology

Aug 2025 – May 2026

- Built a multimodal Parkinson's disease progression pipeline using MRI scans and demographic data across 3,000+ patient records using distributed GPU training on SLURM clusters.
- Fine-tuned self-supervised vision models with demographic feature fusion to improve disease progression classification performance (Macro F1 \approx 0.60).

Investigating importance of Patient Metadata in Public Health, Edith Cowan University

May 2025 – present

- Leading a cross-functional team as the sole data scientist in analysing 1.2M unstructured patient records to quantify the impact of extreme metadata sparsity (94% missing rate) on predictive performance and downstream decision-making.
- Evaluated Gemma-2 and MedGemma models under high missing-data conditions to study robustness and reasoning reliability in public-health prediction tasks.

Samay: Modular ML Inference Framework, Georgia Institute of Technology

Jan 2025 – May 2025

- Developed [Samay](#), an open-source framework unifying 10 time-series foundation models, enabling standardized inference, fine-tuning, and evaluation workflows across diverse data modalities (34 stars, 7 forks).
- Built modular PyTorch 2.0+ pipelines to enable zero-shot evaluation and seamless task-specific adaptation (SFT), optimizing for fast execution across diverse data modalities.
- Architected and executed large-scale benchmarking protocols, validating model performance, scalability, and baseline metrics against unified evaluation standards.

HONORS & AWARDS

IEEE BHI 2025 Data Challenge Competition Winner

Oct 2025

- Engineered and developed an end-to-end AI/ML-based depression risk prediction system, contributing to a winning solution in the IEEE-sponsored competition (supported by NSF and Google)

IEEE BHI 2025 Young Professional NextGen Scholar (NSF, EMBS, Google Sponsored)

Sept 2025

SELECTED PUBLICATIONS

Foundation Models / ML Systems

- H. Kamarthi, S. Li, S. Anand, S. Das, A. Ramesvaran, A. Bhalerao and B.A. Prakash, "Samay: A Unified Pipeline Framework for Time-Series Foundation Models" VLDB 2026 Demo Track Submission