

Pranav S Shetty

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SUMMARY

Computer Science Engineering student with a strong foundation in deep learning, applied machine learning, and secure software development. Experienced in designing, training, and optimizing advanced AI models, including Transformer architectures and Generative Adversarial Networks (GANs), for complex problem-solving. Adept at full-stack system design, model fine-tuning, and translating innovative AI research into practical, scalable solutions.

TECHNICAL SKILLS

Programming Languages: Python, SQL, Java, JavaScript, TypeScript, PHP.

Deep Learning Frameworks: TensorFlow, PyTorch, Keras

AI & Machine Learning: Generative Adversarial Networks (GAN), Transformer Architectures, Large Language Models (LLMs), Computer Vision, NLP, Graph Neural Networks (GNN), Deep Neural Networks (CNN, RNN, LSTM, GRU)

Libraries & Tools: NumPy, Pandas, Scikit-learn, Matplotlib, Git/GitHub, Docker, AWS, Azure, Linux

PROJECTS

Machine Translation from Tulu to English using Transformer Architecture

Feb 2025 – Dec 2025

Deep Learning Project

Python, PyTorch, Transformers

- Developed a Transformer-based neural machine translation system utilizing a self-attention mechanism to translate Tulu to English
- Trained the model on a manually curated parallel corpus of 9,464 sentence pairs with sinusoidal positional encoding
- Achieved a 10-fold reduction in training computational power compared to LSTM/GRU, with research showcased at AIDE 2026

Conditional Password Generation Using a FiLM-Enhanced WGAN

Feb 2025 – Dec 2025

Generative AI & Cybersecurity

Python, TensorFlow, GANs

- Designed a FiLM-enhanced Conditional Wasserstein GAN to achieve superior length control and structural consistency compared to standard baselines
- Optimized training stability through a Wasserstein objective with gradient penalty to capture complex data distributions
- Achieved superior length control over standard baselines, leading to its exhibition at IEEE ICAIC 2026

EXPERIENCE

Web and Cybersecurity Intern

Jan 2026 – Present

Torsecure Cyber LLP.

Mangaluru, India

- Developed front-end and back-end architectures for 3 core web applications, implementing secure coding practices and managing databases supporting active user sessions
- Conducted vulnerability assessments, basic security analysis, and monitoring to support active cybersecurity initiatives
- Assisted in the deployment and hosting of applications to ensure secure and reliable system performance

EDUCATION

Sahyadri College of Engineering & Management

Mangaluru, India

B.E. in Computer Science Engineering

Nov 2022 – Present

CERTIFICATIONS

- Python for Data Science and ML Bootcamp – Udemy
- Google Cybersecurity – Coursera