Prashanth Sreenivasan

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Education

Birla Institue Of Technology and Science (BITS-Pilani), B.E., Computer Science — Aug 2018 – July 2022

- **CGPA:** 7.98/10
- **Relevant Coursework:** Artificial Intelligence, Information Retrieval, Principles of Programming Languages, Theory of Computation, Discrete Structures for Computer Science, Logic in Computer Science, Data Structures and Algorithms, Linear Algebra, Probability and Statistics, Operating Systems, Cognitive Neuroscience

Research Project

MidCurve Neural Network, Under Dr. Yogesh Kulkarni — Present

- Enhancing **MidCurveNN** project to extract **mid curves from 2D closed shapes** using Neural Networks
- Updated the existing architecture for a simple encoder-decoder model
- Implemented a **TensorFlow** encoder-decoder model based on **Dense Neural Networks**. This gave slightly improved results as compared to the simple model
- Implemented a **CNN model** with **batch normalization** and **skip connections** using **TensorFlow**. This method gave results with almost 0 noise and highly improved accuracy
- Exploring training a custom **LoRA** (Low-Rank Adaptation) model for **Stable Diffusion** to compute midcurves

Experience

Software Engineer, Zynga — July 2022 – July 2024

- Developed **full-stack Unity** features for **FarmVille 3**, focusing on single-player and multiplayer mini-games
- Developed a real-time **multiplayer social mini-game** to enhance player-player interactions
- Optimized a **Fishing Minigame**, adding **Dynamic difficulty adjustment** (DDA) to improve player engagement
- Optimized existing weekly **Leaderboard system** to match players according to previous performances
- Enhanced **Downloadable content system** (DLC) enabling in-game asset updates without app deployment, which streamlined event reruns

Software Engineer, Intern, LetsTransport — Jan 2022 – May 2022

- Set up Jenkins on **GCP** and **Kubernetes** for automated CI/CD pipeline, and container management with **Docker**
- Migrated data from **MongoDB** to **PostgreSQL** using **TypeScript**, optimizing transaction performance

Summer Intern, AlgoAnalytics — Apr 2021 – Aug 2021

- Built a **web crawler** to extract finance-specific events from news for company knowledge graph generation
- Finetuned **GPT-Neo** for event extraction from news, improving accuracy from **40% to 85%**
- Automated daily web crawling and event extraction using **Airflow**, **MongoDB Atlas** and **GCP**
- Developed company knowledge graph in **Neo4J** capturing acquisitions, funding history, and operational data

Software Engineering, Intern, Plastic Water Labs — May 2020 – Jun 2020

- Worked with **Unity** and **Vuforia** to develop an AR catalog that resembles the IKEA app.
- Implemented a feature allowing users to place models of furniture and home decor in their rooms using the app

Projects

Monocular Depth Estimation — Github

- Implemented a **depth estimation** program with **GLPN** to generate detailed depth maps from single RGB images
- Implemented experimental pipeline that converted depth maps to **3D pointclouds** using **Open3D**
- Tools Used: PyTorch, Hugging Face Transformers, Open3D, Matplotlib, PIL

Histogram Equalization Github

- Implemented Histogram Equalization using Halide for optimized parallel processing
- Implemented pipeline that supports both RGB and grey scale images
- Tools Used: Halide, C++

Ask Yogasutra Github

- Built a web app using **Streamlit Agraph** and **NetworkX** to visualize ancient interconnected verses
- Implemented **graph-based RAG** chatbot with **Llama-index** for contextual discussions of YogaSutras
- Tools Used: Streamlit, LlamaIndex, Huggingface

Interior Design Generator WebPage

- Developed an interior design generator by training **LoRAs** for specific rooms and styles in **Kohya SS**
- Created a **ComfyUI workflow** that generates rooms in different styles using the trained LoRAs
- Tools Used: Kohya SS, ComfyUI

Path Predicting Enemy in Top Down RPG Game Github

- Developed a top-down RPG, where the player has to escape an enemy and collect coins on the screen
- The enemy **learns from the players movements** and **predicts the next actions**, creating a challenging chase
- Tools Used: C#, Unity

Courses and Certifications

AI, ML and Data Science Graduate Course, IIT Roorkee May 2024 – May 2025

- Pursuing this 52-week comprehensive certification course covering the theoretical fundamentals of AI and Data Science with multiple hands-on projects.
- It covers ML, Deep Learning, diffusion models and generative AI fundamentals with hands-on projects from real-world use cases.

Generative AI Mastery Cohort, 100x Engineers June 2024 – October 2024

- Completed this 22-week cohort run by industry experts exposing the latest trends, tools, and concepts in Generative AI with several industry-focused projects.
- The course covers topics like stable diffusion, ComfyUI, building full-stack projects using llms, and multi-agent frameworks.

Technologies

Languages: C#, Python, C++, Latex, Halide, SQL, Java, Typescript

Software: Unity, AWS cloud services, S3, Stable diffusion, ComfyUI

Libraries: Tensorflow, OpenCV, Open3D, PyTorch, Langchain, CrewAi, LlamaIndex

Hobbies and personal interests

Running: Running has become a part of my daily life. I have run 12 half marathons, with my personal best being just under 2 hours, and one full marathon. Always up for the next big run.

Painting: I like to paint whenever I get a chance and have an idea I want to see on paper. Charcoal, acrylics, oil, and water paints bring my ideas to life.

Tennis: Playing tennis is usually the first thing I do after waking up. It's one of my favorite ways to stay active. Always in for a match, be it competitive or just a casual game.