Sathvik Meripe

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EDUCATION

Indian Institute of Technology Dharwad

Computer Science and Engineering - CGPA: 8.70

Dharwad, Karnataka Dec 2022 – Apr 2026

Projects

Evolutionary Vision Transformer Research

Deep Learning Research

- Explored EvolutionViT, a patch pruning framework for accelerating Vision Transformers (ViT) through multi-objective optimization.
- Studied existing **pruning methods** to balance cost and performance for resource-constrained edge devices.
- Proposed and implemented a novel **initialization heuristic** to guide the evolutionary search, enhancing the efficiency of the patch pruning optimization.
- ullet Implemented all ViT pruning experiments in **PyTorch** for model acceleration and structured analysis.

Recommendation System

Web Development & Machine Learning

- Designed and developed a responsive and intuitive front-end interface using HTML, CSS, and JavaScript to display personalized movie recommendations.
- Engineered the user interface to dynamically fetch and render movie suggestions, creating a seamless and engaging user experience.
- Built a Content-Based Filtering module for a Movie Recommender to provide personalized suggestions.
- Contributed to the recommendation logic by applying text processing techniques like TF-IDF and BM25 for content analysis.

Sports Logistics Management System

Web Development

- Architected the complete user interface and experience (UI/UX), creating intuitive workflows for user authentication and role-specific dashboards for both students and staff.
- Engineered a dynamic and responsive **booking interface**, implementing front-end logic for real-time slot availability and conflict-checking functionalities.
- Designed and built interactive front-end components and visually engaging **email templates** to deliver booking confirmations, cancellations, and status notifications.

Technical Skills

Programming Languages: C, C++, Python

Technologies: HTML5, React, Tailwind CSS, SQL, NumPy, Pandas, LATEX, Matplotlib

ACHIEVEMENTS

- Awarded AP Grade, in Advanced Topics in Deep Learning Course (CS707), IIT Dharwad.
- 4th place (out of 200 participants), in Summer Of Innovation by Coding Club, IIT Dharwad.

KEY COURSES

Computer Science: Data Structures and Algorithms, Software Systems, Computer Architecture, Operating Systems, Computer Networks, Database Management System, Deep Learning, Advanced Topics in Deep Learning

Mathematics: Linear Algebra, Calculus, Discrete Mathematics, Probability, Data Analysis, Theory of Computation

Extracurriculars

- Outreach Team Member, PARSEC Annual Techfest, IIT Dharwad
- Participant at Sleepless Coding Saga, Hackathon on Devfolio.