Hari Prasaath S B

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Education

Amrita Vishwa Vidyapeetham, Coimbatore **2022 – Present**
Bachelor's Degree in Computer Science Engineering *CGPA: 7.13*

Vidhyasagar International Public School **2022**
Higher Secondary School - Class 12 *Percentage: 85.4%*

Kovai Public School **2020**
High School - Class 10 *Percentage: 81.6%*

Experience

Bluestock Fintech **May 2025 – August 2025**
Software Development Engineer Intern

- Developed backend and frontend components for a collaborative team-based Node.js application.
- Implemented key functionalities, including user authentication, real-time data updates, and responsive UI designs.
- Enhanced scalability and maintainability by following best practices in code structuring and modularization.

Projects

Smart Parking Management System | *JavaScript*

- Designed and developed backend logic for a smart parking management system.
- Implemented key functionalities, including parking slot allocation, real-time status tracking.
- Simplified algorithms and enhanced data structures to improve system efficiency and scalability.

Movie Recommendation System | *Python*

- Developed a hybrid recommendation engine using Restricted Boltzmann Machines and Autoencoders, achieving 92% accuracy on the MovieLens dataset (1M user ratings).
- Implemented collaborative filtering with matrix factorization techniques, optimizing recommendation latency to under 100ms per user query.
- Evaluated model performance using RMSE (0.87) and precision-recall metrics, and built visualizations to analyze loss trends and recommendation accuracy.

Supply Chain Management System | *Python*

- Developed backend logic for a supply chain management system.
- Optimized algorithms and data structures for efficiency and scalability.
- Implemented demand forecasting, order processing, and delivery scheduling functionalities.

E-NFA to DFA Converter | *Python, Graphviz*

- Designed algorithm for automated finite automata conversion with state minimization, reducing average DFA states.
- Implemented optimized data structures (hash tables, adjacency lists) for state transition management with $O(n^2)$ time complexity.
- Generated interactive state transition diagrams using Graphviz, supporting export to multiple formats (PNG, SVG, PDF).

Technical Skills

Programming: Python, C, C++, Java
Web Development: HTML, CSS, JavaScript, React.js, Node.js, Next.js
Database: MySQL, MongoDB
Machine Learning Frameworks: TensorFlow, PyTorch

Extra-Curricular Activities

Co-Head, Anokha TechFest (National Level Tech Fest) | *Amrita Vishwa Vidyapeetham* **2024**

Certifications

Programming in C Certification

Web Development Bootcamp Certification

Introduction to Cloud by IBM

Programming in C++ Certification