Santhoshi Shalini Palla

Bachelor of Technology
in Computer Science and Engineering
Indian Institute Of Technology, Ropar

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GitHub | Leetcode
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EDUCATION

Degree	Institute/Board	CGPA/Percentage	Year
Bachelor of Technology	Indian Institute of Technology, Ropar	7.13 (Till 5th Sem)	2022-2026
Senior Secondary	Board of Intermediate Education,Andhra Pradesh	98.6%	2022
Secondary	Board of Secondary Education,Andhra Pradesh	10	2020

PROJECTS

- **Dynamic Connectivity Checker** *November 2024*
  Analysis and Design of Algorithms **Github**
  – Implemented a dynamic connectivity solution using graph algorithms. The project allows for adding/removing edges and checking connectivity between nodes in a graph.

- **Memory Management in xv6** *Dec 2024*
  Operating Sysytems **Drive**
  – Developed the numvp() and numpp() system calls to count virtual and physical pages efficiently.
  – Implemented a memory mapping system using mmap() to extend process virtual address spaces.
  – Optimized the fork system call to implement Copy-on-Write (CoW) for efficient memory sharing.

- **Loan Application Data Analysis** *Jan 2025*
  Machine Learning **Github**
  – Preprocessed loan data with missing value handling and feature scaling for machine learning pipelines.Balanced the dataset using RandomOverSampler to improve classification performance.
  – Built predictive models using Logistic Regression, Random Forest, and SVM with optimized hyperparameters.

- **ResearchX** *April 2025*
  MERN Stack Application **Github**
  – This project is a clone of government research grant portals like ANRF, DST, or DBT, with additional features to digitalize paperwork and streamline the approval process
  – The project ensures efficient data handling with MongoDB, Express.js, React.js, and Node.js.

- **Mini Projects**

- **AIMS-PORTAL** AIMS PORTAL is a web application designed to streamline academic and institutional management. It provides features for student enrollment, course management, and performance tracking using the MERN stack.| **Github**
- **Residual Neural Network** Implemented ResNet for deep learning tasks using TensorFlow/PyTorch, optimizing training, evaluation, and model performance visualization.| **Github**
- **Lexer and Parser for Mini-C** Built a compiler with a lexer for tokenization and a parser for syntax validation.| **GitHub**

TECHNICAL SKILLS

- **Programming Languages**: C++ , Python , C, Javascript, Shell Script
- **Web Development**:
  - **Frontend**: HTML, CSS, Tailwind CSS, Bootstrap, jQuery, React.js,RESTful API
  - **Backend**: Node.js, Express.js
- **DataBases**: MySQL ,PostgreSQL, MongoDB
- **Development Tools**:
  - **version control:**: Git , Github
  - **Containerization:**: Docker
  - **Deployment:**: Netlify, CodeSandbox
  - **other:**: Jupyter,Linux, Perl

KEY COURSES TAKEN

- **CSE & Maths**: Machine Learning, Software Engineering, Operating systems, Data Structure & Algorithms(DSA) , Data Base Management systems, Programming Paradigms and Pragmatics,OOP, Computer Networks,Digital Logic Design, Discrete Mathematics, Introduction to computing and Data Structures, Probability and Statistics, Linear Algebra.

ACHIEVEMENTS

- **Leetcode**: Max rating 1756 , Secured rank 1823 in Biweekly Contest 144 *2024*
- **JEE MAINS**:Ranked among the top 1.3 percent of all India JEE Mains test takers. *2022*
- **AP EAMCET**:Secured Rank of 580 among 300K Applicants. *2022*
- **SSC**:Earned a perfect 10/10 in SSC exams,demonstrating strong foundational skills *2020*