MUNJAM NAVADEEP

📞 +91-8555962023 ✉ munjamn@iitbhilai.ac.in in Linkedin Github Codeforces 📝 Portfolio ✂ GeeksforGeeks

EDUCATION

Indian Institute of Technology, Bhilai   **2022 − Present**
B.Tech - Computer Science and Engineering   *Bhilai, Chattisgarh*

PROJECTS

Multimodal Emotional Cause Pair Extraction ⬈ | Python, Deep Learning   **Oct 2024 - Dec 2024**

- Developed transformer-based architecture with cross-modal attention to detect emotion-cause pairs from text (Twitter/Reddit) and images
- Improved F1-score by 12% over baseline by implementing hierarchical context modeling and focal loss for class imbalance
- Deployed as low-latency REST API (Flask) with 40% faster inference through model quantization (TensorRT)
- Analyzed results on MELD and IEMOCAP datasets using t-SNE visualizations and attention heatmaps
- Technologies Used: PyTorch, Transformers (BERT), ResNet-50, OpenCV, HuggingFace, Flask, CUDA

Full Stack Blog Platform ⬈ | React, NextJS, Database - Postgress   **Jan 2025 - Feb 2025**

- Developed a full-stack blog platform with authentication, post management, and social features.
- Implemented secure authentication using Clerk with email/password and OAuth providers.
- Designed database schema with PostgreSQL and Prisma ORM, modeling user relationships and posts.
- Built CRUD operations for blog posts with proper authorization checks.
- Added user following functionality with optimized database queries.
- Technologies Used: Next.js 14, TypeScript, Tailwind CSS, Prisma, PostgreSQL, Clerk, Vercel.

Terminal Shell Development ⬈ | C, Unix System Programming, Make   **June 2024 - July 2024**

- Developed a **custom Linux shell** with core command execution capabilities using `fork/exec` system calls.
- Implemented **15+ standard commands** including `ls`, `cp`, `mv` with proper error handling and user feedback.
- Added **custom features** like `gexit` for graceful exit and command history tracking.
- Optimized performance through **memory management** and modular code design with `.h/.c` files.
- Implemented **build automation** using Makefile with compilation flags and clean targets.

Mini GO Compiler ⬈ | C, Flex, Bison, Compiler Design   **Dec 2023 - April 2024**

- Developed a **compiler** for a subset of GO language with syntax analysis and semantic checking capabilities.
- Implemented **symbol table management** for both global and local variables with operator overloading resolution.
- Supported **function recursion** with visual parse tree and Abstract Syntax Tree (AST) generation.
- Built robust **error-handling mechanisms** for compile-time errors and warnings.
- Utilized compiler construction tools including **Flex** for lexical analysis and **Bison** for parsing.

TECHNICAL SKILLS

Languages: C, C++, Python, JavaScript, TypeScript
Markup/Styling: HTML, CSS, Tailwind CSS
Developer Tools: Git, GitHub, Docker,Kubernetes, Postman, VS Code
Frameworks: Next.js, React, Express
Cloud/Databases: MongoDB, Mongoose
Data Analysis & Visualization: NumPy, Pandas, Seaborn, Matplotlib
Coursework: Web Development, Data Structures and Algorithms, Operating Systems, Compiler Design, Machine Learning, NLP
Areas of Interest: DevOps, Web Development, ML

ACHIVEMENTS

1st place **Code Cursade Hackathon** among 24 teams organized by the Coding Club at IIT Bhilai.2024

EXTRACURRICULAR

- **3KM Marathon Champion**: Won 3rd place out of 18 in 2021 Intra-College Competition (Timing: 10:47)
- **DesignX Member** (2023-2024): Designed 3+ institutional event posters using Figma and Adobe Suite with 60+ impressions