ARIB SHAN

+91 96670 62860 | aribshan@gmail.com | linkedin.com/in/arib-shan/ | Codeforces : 1927 (Candidate Master) | github.com/aribshan | aribshan.netlify.app

EDUCATION

Indian Institute of Technology Kharagpur
Bachelor of Technology (CGPA: 8.40 / 10.0) — Nov 2020 - Jun 2024

WORK EXPERIENCE

Turing — Remote
Software Engineer — Jun 2024 – Present
- Fine-tuned hyperparameters for large scale LLMs by leveraging SFT and RLFH to optimize the model performance for real-world applications
- Built tools integrating Slack with Turing's labeling tool, Colab-based workflows, and vector image search pipelines enhancing team productivity
- Prototyped function calling in LLMs for interaction with external applications, enabling more dynamic and context-aware interactions

Accenture [Certificate] — Bangalore, India
Advance App Engineering Analyst Intern — Jun 2023 – Aug 2023
- Worked on a live project to develop a synthetic data generator to enhance data privacy and mitigate real-world biases on diverse datasets
- Designed a scalable architecture using GANs and multivariate Gaussian models, maintaining data integrity and statistical distribution
- Implemented a flexible model supporting Excel, CSV, JSON, MongoDB, MySQL, PostgreSQL, and MariaDB data formats for data generation
- Built and deployed a Streamlit dashboard to visualize the synthetic data generation process, providing real-time feedback on data quality

Qurial.AI [LoR] — Kharagpur, India
Front-end Developer Intern — Jan 2023 – Mar 2023
- Designed a visually captivating front-end for the startup's website, enhancing user experience and increasing the website's engagement
- Integrated OpenAI APIs to provide personalized post-visit patient support, enhancing the API communication for real-time interaction
- Focused on ensuring seamless API communication and improving the reliability of data transmission between frontend and backend systems

UpUGo [Certificate] — Remote - India
Game Developer Intern — May 2021 - Jul 2021
- Streamlined an innovative fitness boxing game intending to revolutionize home-based exercise with gamification using Unity Engine
- Integrated OpenCV for capturing real-time motion tracking through users' webcams, seamlessly synchronizing it with in-game characters
- Successfully developed and optimized the web-based game and embedded it on the company's website, amplifying the user engagement

DEVELOPMENT PROJECTS

Low-Latency Trading Simulator [Link]
- Developed a C++17 trading simulator with ITCH/OUCH-style binary feed parser over UDP using Winsock2 sockets and raw memory buffers
- Implemented a thread-safe order book supporting add, modify, and cancel operations using STL maps with mutex-based synchronization
- Built a custom latency profiler using high-resolution clocks to benchmark nanosecond-level delays in feed and execution loops

Stock Analysis and Portfolio Management Web App [Link]
- Developed a real-time stock analysis and portfolio management web application featuring dynamic stock comparisons and portfolio tracking
- Implemented functionality allowing users to search, retrieve and compare up-to-date stock information with interactive visualizations
- Added a functionality for users to upload their portfolios and monitor key performance metrices for real-time portfolio analysis

Virtual Reality Laboratories | Prof. Kaushal Bhagat [Link]
- Engineered an application aimed at facilitating training for the intricate processes of silicon fabrication utilizing sophisticated machinery
- Employed virtual reality to craft an immersive, intuitive, and realistic training environment for a more effective learning experience
- Formulated a user interface that navigates through various processes of the machine, providing real-time feedback on the experiments

TECHNICAL SKILLS

C++ 17/20 (STL, Boost), Python, C, SQL, Git, Linux, Docker, Kubernetes, AWS, Multithreading, Networking, Machine Learning, AI, LLMs, TensorFlow

AWARDS AND ACHIEVEMENTS

- Competitive Programming Ratings | Codeforces : 1927 (Candidate Master) | Leetcode : 2329 (Guardian) | Atcoder : 1573
- Candidate Master: Ranked within the top 200 highest-rated active competitive programmers in India on Codeforces

POSITIONS OF RESPONSIBILITY

Head of 3D Graphics | Computer Graphics Society, IIT Kharagpur — Aug 2022 - July 2023
- Supervised a multitude of projects, directing 40+ developers in game development, 2D & 3D graphics, simulations, and extended reality
- Collaborated with IIT Kanpur and IIT Guwahati to successfully host a nationwide Game Jam, 'ReSpawn', gathering over 200 participants