Partha Sarathi Purkayastha

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EDUCATION

Birla Institute of Technology and Science (BITS) Pilani, Rajasthan, India *Aug 2020 - Present*
Bachelors of Engineering in Computer Science *GPA: 9.80/10.0*

Relevant Courses: Data Structures and Algorithms, Database Systems, Object Oriented Programming, Operating Systems, Computer Networks, Theory of Computation, Computer Organization, Computer Graphics, Human Computer Interaction

TECHNICAL SKILLS

Programming languages: Python, JavaScript, TypeScript, Java, C/C++, GoLang, MySQL
Libraries/Frameworks: Node.js, React.js, Next.js, Redux, Tailwind CSS, Memlab, MongoDB

EXPERIENCE

Software Engineering Intern - Sprinklr, Gurgaon *Jan 2024 - Present*
- Identified and resolved **memory leaks** across codebase using **memlab**, reducing overall memory consumption by **10+%**
- Implemented **SSR** for components with **end-to-end testing**, enabling dynamic rendering and **20+%** faster load times
- **Technologies used:** Next.js, GraphQL, Memlab

Software Engineering Intern - Uber, Hyderabad *May 2023 - Jul 2023*
- Developed an **end-to-end application** for handling **Credit Types** in the company's portal used by **2000+ employees**
- **Automated** integration process with **end-to-end testing**, enhancing reliability, and reducing onboarding time by **2 months**
- **Technologies used:** React.js, GraphQL, GoLang, MySQL

Software Engineering Intern - Mercedes-Benz, Bangalore *Jan 2023 - May 2023*
- Enhanced vehicle component design by training **VAE Models** on **25,000+** data points provided in a proprietary dataset
- Optimized product development by designing an AI-driven website to **generate custom designs** for company research
- **Technologies used:** Docker, Flask, React.js, MongoDB

Summer Intern - Jio Platforms Ltd, Mumbai *May 2022 - Jul 2022*
- Improved object detection in AR/VR design at Jio by devising a **pipeline** automating **bounding box dataset** creation
- Achieved **90+% confidence** training YOLOv7 on a proprietary dataset, **distinguishing objects and barriers from humans**
- **Technologies used:** PyTorch, Selenium, Roboflow

RELEVANT PROJECTS

Rogue Ops - Game Development *Jan 2023 - May 2023*
Supervised by Dr. Sundaresan Raman, BITS Pilani
- Developed a **third-person shooter game** in **C#** with missions, day-night cycles, and inventory for immersive gameplay
- Utilized **Blender** for crafting high-quality game assets and integrated them with **Unity** for fluid animations
- Employed **CineMachines** to provide enhanced, cinematic camera perspectives within the game environment

Fake News Detection - Machine Learning *Oct 2021 - Dec 2021*
Supervised by Dr. Virendra Singh Nirban, BITS Pilani
- Trained **Bi-LSTM, LSTM and Ensemble Learning** Models for **text-based fake news classification**
- Performed a comparative study and achieved **90+%** on all evaluation metrics with Bi-LSTM
- Presented the findings in the **WICT 2022 Conference** and the results were published in **Springer's LNNS**

DNS Visualizer - Web Development *Sept 2021 - Oct 2021*
Supervised by Dr. Amit Dua, BITS Pilani
- Developed a **full-stack** website to visualize the **DNS Security Extensions** (DNSSEC) authentication chains
- Utilized **Node.js** for server-side and **React.js** for client-side, ensuring seamless platform functionality and interface
- Integrated a relational **MySQL database** for efficient data retrieval enabling dynamic content rendering on the website

POSITIONS OF RESPONSIBILITY

Teaching Assistant - GS F331, Techniques in Social Research *Jan 2023 - Present*
Organized **evaluations** for a class of **50 students** on Techniques in Social Research, and conducted **weekly field classes**

Teaching Assistant - CS F241, Microprocessors and Interfacing *Jan 2023 - May 2023*
Taught **MASM based** assembly programming to a class of **50 students** and facilitated **weekly lab sessions**

Publicity Coordinator - Arunodoi, BITS Pilani *Jan 2022 - May 2022*
Led the **photo-editing** and **video-editing** teams of Arunodoi to improve **cultural integration** and **community engagement**

Volunteer - Indian Red Cross Society *Nov 2021 - Jan 2022*
Volunteered for the execution of a **two-day long** Blood Donation Camp with a footfall of **3000+** and **800+** Blood Donations

SCHOLASTIC ACHIEVEMENTS

Institute 100% Merit Scholarship - Awarded to the **top 1%** of the batch for academic excellence *Jan 2021 - Present*