

Partha Sarathi Purkayastha

Room 2110, Shankar Bhawan – BITS Pilani – Pilani, India
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🌐 portfolio-psindiap.vercel.app

Third year undergraduate at BITS Pilani pursuing a major in Computer Science and Engineering (Hons.), applying for the position of Research Assistant in the Department of Computer Science.

Education

Bachelor of Engineering(Hons.)	9.86/10.0
Computer Science and Engineering, BITS Pilani	2020-24
All India Senior School Certificate Examination (Class XII)	97.20%
South Point School, Guwahati (CBSE)	2019
All India Secondary School Examination (Class X)	10.0/10.0
South Point School, Guwahati (CBSE)	2017

Research Interests

- **Broad Areas of Interest:** Computer Vision, Natural Language Programming, Human-Computer Interaction

Scholastic Achievements

- Awarded **BITS Merit Scholarship(100%)** for being among the Top 1% of students in the year 2020
- Secured **All India Rank 3300** in JEE Advanced 2020 among **150,000** candidates
- Secured **99.7** percentile in JEE Main 2020 among **1.1 million** candidates
- Secured **All India Rank 6040** in NEET 2020 among **1.36 million** candidates
- Secured **403/450** marks in BITSAT 2020
- Secured **Rank 1** in Assam CEE 2020

Technical Strengths

- **Programming Languages:** C/C++, Python, Java
- **Development:** HTML, CSS, Node JS, React JS, MySQL, Scikit, Numpy
- **Others:** L^AT_EX, Git, GitHub, Postman

Work Experience

Dataset Automation

Guide: Nikhil Singh, Jio Platforms Ltd.

May 2022- Jul 2022

- Created a **bounding box dataset** by downloading google images in single shot and automated the process of data selection
- Used **numpy, matplotlib and colab_utils** libraries
- Used Roboflow for the Annotation process and to export in the required format.

Key Academic Projects

Object Detection Model

Guide: Nikhil Singh, Jio Platforms Ltd.

Jun 2022- Jul 2022

- Trained an Object Detection Model based on the latest model **Yolov7** within a confidence of **35%**.
- Used **sklearn, numpy, tensorflow, PIL and matplotlib** libraries.
- Model could detect relevant objects with a confidence of **80+ %**.

DNS Visualizer

Guide: Dr. Amit Dua, Computer Science Department, BITS Pilani

Mar 2022- Apr 2022

- Developed a **full-stack website** for the visualization of the **DNSSEC** authentication chain
- Implemented using a **relational SQL database**
- Server side and Client side developed using **Node JS** and **React JS** respectively.

Fake News Detection Model

Guide: Dr. Tanu Shukla, Department of Humanities & Social Sciences, BITS Pilani

Oct 2021-Jan 2021

- Trained **Bi-LSTM, LSTM and Ensemble Learning** Models to detect fake news
- Used **Accuracy, F1-score, Precision, Recall, and Specificity** to compare performances
- Achieved **90+ %** using Memory-based models on all parameters

Key Courses Taken

Computer Science

Data Structures and Algorithms, Database Systems, Object Oriented Programming, Computer Programming, Logic in Computer Science, Discrete Structures in Computer Science, Microprocessors and Interfacing, Digital Design

Mathematics & Other Courses

Linear Algebra, Probability and Statistics, Calculus, Differential Equations, General Biology, Principles of Economics, Techniques in Social Research, Technical Report Writing

Additional Courses Undertaken

Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning by **DeepLearning.AI**, AI for Medical Diagnosis by **DeepLearning.AI**, **Amazon ML Summer School 2022**

Extra-Curricular Activities

Publicity-Coordinator

North-East Cultural Association: **Arunodoi**

Feb 2022-Apr 2022

Video-editor for promotion of the cultural groups belonging to the Association, and also represented the Association on Founders' Days 2022 Event at BITS Pilani.

Student Volunteer

Indian Red Cross Society

Mar 2022

Volunteered for the execution of a two-day long Blood Donation Camp with a footfall of 3000+ and 800+ Blood Donations.

Teaching Assistant

Youngenius Eduventure Pvt Ltd

Nov 2020- Feb 2021

Prepared materials to help students for JEE Mains/JEE Advanced/NEET in the subjects of Physics, Chemistry and Mathematics.

Languages Known

English, Hindi, Malayalam, Bengali