

Academics

2018-2022 | *B.Tech* in **Instrumentation Engg** with **Minor in Computer Science Engg**, IIT Kharagpur
GPA **8.80/10.0** (Ongoing)

Experience

May 21- July 21 | **Software Development Intern : BNY Mellon** [↗](#) **BNY Mellon, Pune**
- Worked on a dashboard, written in *angular and java (springboot)*, which provides Pentaho ETL software as a service (SAAS) to **70+ applications teams**, which run around **3000+ jobs per day**.
- Developed **api endpoints** for displaying job deployment details and server license information.
- Implemented **timer based auto refresh**, resulting in **performance boost in production by around 30%**.
- Also worked on adding various **UI features** like *dropdowns, dialog boxes, Stepper UI, paginator, etc.*

Projects [↗](#)

Software Team Member, Aerial Robotics Lab, Kharagpur (ARK) [↗](#) **Guide: Prof. Somesh Kumar**
• Developed and Implemented various algorithms for efficient **localization and Path planning** of drones.
• Worked on **computer vision** techniques for effective **detection of shapes and features** in an image.
• Worked on **vision based controllers** for effective controlling of drones and **obstacle avoidance**.
• Deployed an **ORB_SLAM2** based **indoor localisation** algorithm. Also worked on a **realtime 3D mapping and object detection** using stereo cameras.

Productivity Meter [↗](#) **★ : 15, ♪ : 24**
• Owner and maintainer of **open source software "Productivity meter"**, a **javascript** based application that helps users to **monitor and reduce their time wastage** and increase productivity, **using Timers**.
• It also has features of a **ToDo List**, a counter to keep **count of problems solved** and **average solving time**.
• It has option to **save the data of the session** of user, in the browser. Thus, **users can start where they left**, making it the **ideal productivity tracking app**.

Covid-19 Detection using Chest X-Ray Images [↗](#) **Guide: Prof. Debdoot Sheet**
• DL-based solution for covid-19 detection using chest X-Ray images.
• Trained a **transfer learning Resnet model** and a **Vanilla CNN model in Pytorch** for covid-19 prediction.

Awards & Achievements

- Part of the **GOLD Winning Team** of **IMAV-19 Indoors** [↗](#) (*11th International Micro Air Vehicle Competition*), among 14 teams from **across 11 countries**, in *Madrid, Spain*. Also featured in **IIT KGP UG achievers** [↗](#) directory.
- Successfully qualified **Regional Mathematics Olympiad (RMO) - 2016** and was among the **few selected students**(35 in number) in the **whole batch of 9th, 10th and 11th std** from State of Jharkhand, India.

Technical Skills

Languages | C/C++ • Java • Javascript • Typescript • Python • HTML • CSS • SQL • MATLAB
Packages/Tools | SpringBoot • Angular • Git • Pytorch • Keras • OpenCV • Sklearn • Numpy • Pandas • ROS

Relevant Coursework

Completed | *Algorithms (Theory+Lab) • Database Management System • Computer Architecture And Operating System • Data Analytics • Deep Learning Foundations and Applications • Discrete Structures • Probability and stochastic processes • NLP • Image Processing • Deeplearning.ai specialization (Coursera)*

Positions Of Responsibility

- **Mentor, Kharagpur Winter of Code, 2020**
Owner and Maintainer of Productivity Meter [↗](#), Coordinated a group of **17 active contributors** working in parallel, during an **annual open source fest, KWoC** (Kharagpur winter of code), organised by **KOSS, IIT Kharagpur**.
- **Mentor, IEEE Robotics Winter Workshop, 2019**
Conducted Winter Workshop as one of the **Lead Mentors**, attended by a group of **80+ First and Second years**, about various **computer vision and Path Planning algorithms**, their use and implementation in **OpenCV**.