

ATANU SHUVAM ROY

Department of Computer Science & Engineering | Indian Institute of Technology, Kanpur

@ atanusroy22@iitk.ac.in

atanuroy911

atanuroy911

atanuroy.netlify.app

+91 9026935417

EDUCATION

Indian Institute of Technology, Kanpur
MTech | CSE CGPA: 6.75/10

2022 - Present

Kanpur, India

Jiangxi University of Science & Technology
BE | CST

Percentage: 91.01%

2018 - 2022

Ganzhou, China

Notre Dame College
XII, HSC

GPA: 5/5

2017

Dhaka, Bangladesh

St. Joseph Higher Secondary School
X, SSC GPA: 5/5

2015

Dhaka, Bangladesh

ACCOMPLISHMENTS

- 2021 - 2nd Position (Provincial) & 3rd Position (National) - 14th China University Computer Design Competition
- 2019 - 2nd Prize in Central China - "Internet" Innovation Competition and the 7th "Discovery Cup", China

COURSEWORK

MTech Courses

- Embedded and Cyberphysical Systems
- Deep Learning for Computer Vision
- Introduction to ML
- Sensing Communication & Networking

BE Courses

- Data Structures & Algorithms
- Operating Systems
- Embedded Systems
- Computer Networks
- Database Management System

SKILLS

Languages

C/C++, Python, Javascript (NodeJS/ReactJS), HTML/CSS/PHP, JAVA/Kotlin (Android), Flutter (Dart)

Utilities

Scikit-learn, Pandas, Numpy, PyTorch, SQL, NoSQL (MongoDB), PyQt5, Git

RESPONSIBILITIES(POR)

- International Student Representative (Volunteer) at Jiangxi University of Science & Technology, China (Aug '18 - Jan'22)

CERTIFICATIONS

- Google IT Support Specialization (Issued: May 2019) - Credential ID: XWWFL3BT84WV

WORK EXPERIENCE

*INTERNSHIP

Freelance Developer

Remote

Dec 2022 - Present

- Worked on various projects as a freelance developer focusing on **Cross Platform Web and Mobile App Development**
- Collaborated with clients to understand their requirements, providing tailored solutions and delivering high-quality results
- Built ML-based Applications like **Activity Recognition using LSTM, OpenCV Object Detection** etc.

Associate Web Developer - Wizzartech

Full-Time Remote

Toronto, Canada

Apr 2022 - Aug 2022

- Leading Jr. Developers** to finishing projects and micromanage the team
- Creating Websites** according to the demand of clients

Software Engineer - Qianfeng Interconnection Technology Co., Ltd.*

Nanchang, Jiangxi, China

Jun 2021 - Jul 2021

- Designing and developing a **Web Application for BlockChain Integration**

Chief Tech Expert & RA - Robotics & Automation Research Lab (RARL)

Part-Time

Ganzhou, Jiangxi, China

Aug 2018 - Dec 2021

- Led the team to successful completion of the projects in record time
- Developed Several Full Stack Applications- **Self-lecture Attendance Service, Pandemic-driven Exam Assistant (PEA), Raspberry Pi SCADA System for Agricultural Plant Monitoring**

TECHNICAL PROJECTS

Smart Ambulance

Lab Project

Apr 2023 - Present

- Building a **GPS-based Ambulance Tracking System** with JS and Python

IIT Kanpur Firewall Authenticator GUI

Personal Project

Sep 2023 - Aug 2023

- Built a **GUI wrapper** for auto authentication of IIT Kanpur's Firewall using **PyQT5**

Activity Recognition Application using LSTM

Freelance Project

Sep 2023 - Aug 2023

- Implemented a **LSTM model and deployed in the cloud** for activity recognition (sensor-based) using PyTorch and built a mobile app to monitor sensors & predict activity

Smart Parking System

Freelance Project

Jul 2022 - Sep 2022

- Developed Web Application and APIs to manage multiple parking lots using **ReactJS** and **ExpressJS** for admin tasks having **LoRa-Wan** as networking medium

Car Dealership CRM

Independent Project

May 2022 - Jun 2022

- Built a **full stack CRM application** to get leads, record customer information, send promotional emails, etc.

Online Exam Assistant

Team Project

Oct 2020 - Apr 2021

- Built a **full stack application** for distance education having course management, exam scheduling, and timed assessment with anti-cheating mechanisms

Self-Lecture Attendance System

Team Project

May 2019 - Dec 2020

- Developed a QR-based attendance system with Java Springboot and **WeChat Mini Program** for the client module

Canteen Management System [食堂经理]

Team Project

Aug 2019 - Dec 2020

- Contributed to building a **full stack application** with Springboot (Java)
- Helped develop the **WeChat Mini Program** for the customer interaction

COPYRIGHTS

- 2022 - **Software Copyright** - Pandemic-driven Exam Assistant PEA 线上考试助手[简称: PEA] 登记号: 2022SR0088310 [China]
- 2020 - **Software Copyright** - Self-Lecture Attendance System 自学考勤系统[简称: SLAS] 登记号: 2020SR0058411 [China]

LANGUAGE SKILLS

- **Bengali** - Native
- **English** - Fluent (IELTS: 7.0)
- **Hindi** - Intermediate
- **Chinese** - Beginner

REFEREES

Dr. Priyanka Bagade

@ Indian Institute of Technology, Kanpur

✉ pbagade@iitk.ac.in

Dr. Amitangshu Pal

@ Indian Institute of Technology, Kanpur

✉ amitangshu@iitk.ac.in

Dr. Ata Jahangir Moshayedi

@ Jiangxi University of Science & Tech

✉ ajm@jxust.edu.cn

ACADEMIC PROJECTS

IoT based on-site Water Pipeline Inspection

Guide: *Prof. Priyanka Bagade*

Feb 2023 - Present

- Implementing **efficient channel attention mechanism** inside YOLOv7 object detection model to increase accuracy
- **Reducing model complexity** and hence size to enable better performance on Raspberry Pi

Robot Assistant X - Your Personal ChatBot

Instructor: *Prof. Amitangshu Pal*

Aug 2023 - Nov 2023

- Implementing an **NLP Model using Tensorflow** on the Raspberry Pi Device
- Building a Companion App for the Robot using Flutter
- Developing communication using microphone and **manage indoor localization** using object detection sensors

Welding Defect Detection using improved YOLOv7 model

Instructor: *Prof. Priyanka Bagade*

Feb 2023 - Apr 2023

- Implemented **Efficient Channel Attention Mechanism (ECA-Net)** in the network
- Reduced model size to test on IoT and Edge Devices

Automated Guided Vehicle (AGV) Path Tracking

Instructor: *Prof. Indranil Saha*

Aug 2022 - Nov 2022

- Designed and simulated **4-wheel differential drive AGV** with object detection sensors in CoppeliaSim VREP
- Introduced a **path tracking algorithm** that uses camera sensor for the vehicle in Python

Remote Traffic Police Sensing via Deep Learning B.Eng.

Guide: *Dr. Ata Jahangir Moshayedi*

Mar 2021 - Dec 2022

- Designing an **Multi-label Object Detection Model** for moving vehicles using OpenCV and deployed speed detection algorithm using OpenVINO on Raspberry Pi
- **Optimizing image capturing** method accounting for camera tilt on UAV before feeding the model