ATANU SHUVAM ROY

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

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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

- 2022 - **Outstanding International Graduate Award** – Jiangxi University of Science & Technology
- 2021 - **2nd Position (Provincial) & 3rd Position (National)** - 14th China University Computer Design Competition
- 2019 & 2020 - Awarded **Jiangxi Provincial Government Scholarship** for foreign students, China
- 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

BE Courses

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

SKILLS

Languages

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

Utilities

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

RESPONSIBILITIES(POR)

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

RESEARCH EXPERIENCE

RADAR based Smart Street Light Control **(M.Tech Thesis)**
Guide: Prof. Priyanka Bagade & Prof. Amitangshu Pal *Mar 2023 - Present*

- Designing an **Multi-label Classification Model** for multiple moving objects and making live predictions using RADAR
- Building a **IoT based hardware prototype** with the RADAR sensor and deploying the model on it

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

WORK EXPERIENCE

Associate Web Developer (Remote) - Wizzartech
Toronto, Canada *Apr 2022 - Aug 2022*

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

Chief Tech Expert & Research Assistant (Part-time) - Robotics and Automation Research Lab (RARL)
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

***COURSE PROJECT**

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

Automated Guided Vehicle (AGV) Path Tracking*
*Instructor: **Prof. Indranil Saha*** Aug 2022 - Nov 2022

- Designed and simulated **4-wheel AGV** with object detection sensors introducing a path tracking algorithm in VREP using Python

Smart Ambulance

- Built a **Web-Based Ambulance Tracking System** with JavaScript and Python

Car Dealership CRM

- Built a **full stack application** with ReactJS (Material UI) and NodeJS

MISCELLANEOUS

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

PUBLICATIONS

GOOGLE SCHOLAR

- Moshayedi, A.J., **Roy, A.S.**, Taravet, A., Liao, L., Wu, J. and Gheisari, M. "A secure traffic police remote sensing approach via a deep learning-based low-altitude vehicle speed detector through uavs in smart cites: Algorithm, implementation and evaluation", *Future Transportation*, 3(1), pp.189-209, 2023.
- Moshayedi, **Roy, A.S.**, A.S., Kolahdooz, A. and Shuxin, Y. "Deep learning application pros and cons over algorithm deep learning application pros and cons over algorithm" In *EAI Endorsed Transactions on AI and Robotics*, 1(1), 2022.
- Moshayedi, **Roy, A.S.**, Liao, L. and Li, S., Y. "Raspberry Pi SCADA zonal based system for agricultural plant monitoring" In *6th International Conference on Information Science and Control Engineering (ICISCE)*, pp. 427-433, 2019. IEEE.