Mohit Kumar

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B.Tech - Computer Science and Engineering
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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. Major	Indian Institute of Technology, Guwahati	8.55	2021-2025
Senior Secondary	CBSE Board	95.6%	2021
Secondary	CBSE Board	97.2%	2019

EXPERIENCE

- **SDE Intern - WinZO Games** *May 2024 - July 2024*
  Backend Intern Onsite, New Delhi, India
  – Developed a new Service for Super Star Deals used by the WinZO Marketing Team to manage their deals with over **75,000 superstars(micro-influencers)** in 6+ countries.
  – Integrated new features of advanced payment flow, multiple payment modes (CPV and CPR), automatic payment amount updates, enhanced search functionality, and New Relic for logging.
  – Reduced average response time from **3.4 s to 270 ms** for the new service by improving API efficiency by adding pagination support, optimizing database joins, and implementing promise-based data fetching.
  – **Tech Stack:** TypeScript, Node.js, PostgreSQL, TypeORM, Git, Postman, New Relic, Jenkins.

- **MITACS Globalink Research Intern - Dalhousie University, Canada** *May 2023 - July 2023*
  Research Intern under Prof. Ahmed-Al Mallahi Onsite, Nova Scotia, Canada
  – Developed deep-learning model for the detection and segmentation of potato tubers on post-harvest conveyors.
  – Accomplished high-precision segmentation of potato tubers by achieving high mean intersection over union (mIoU) and average precision (AP) values by utilizing **Mask R-CNN** compared to **YOLO v4**.
  – Enhanced algorithm efficiency by improving performance from **12s to 900ms** by optimizing deep-learning models.
  – **95% mIoU, 92% Recall and 94% Precision** was observed by the enhanced algorithm is now utilized by McCain's Farms of Future (FoF), Canada.
  – **Tech Stack:** Python, PyTorch, TensorFlow, YOLO v4, Mask R-CNN, Computer Vision.

PROJECTS

- **Trends Visualizer** *May 2024 - August 2024*
  Freelance Project at No Hedge No Edge LLC which provides trading & investment tools for an informed decision. GitHub
  – Developed a **Time Series plotting tool** that allows users to visualize and analyze relations between trends in Google searches, Stocks, and Cryptocurrencies facilitating more informed trading and investment decisions.
  – Implemented multiple overlay plots with **customizable metrics, scales, and colors**, along with interactive controls (delete plots, zoom, date change, etc.) for enhanced user experience.
  – Improved **search performance by 25%** by implementing Auto-complete Search with debounce and integrated FinnHub APIs.
  – **Tech Stack:** TypeScript, Next.js, Git, D3.js, .

- **IITG Auto Grader & Plagiarism Checker** *April 2024*
  Hackathon Project(1st Prize) GitHub
  – Built a **Django** based assignment submission portal, implementing more than **10 functionalities** for both student and instructor.
  – The portal has been integrated with an **auto plagiarism** checker and an **autograder** for the instructor. Wrote **python** scripts to implement both these functionalities.

- **Contacts Management Portal** *March 2024 - April 2024*
  Centre for Career Development (CCD), IITG GitHub
  – Built a contact management portal used by **40+ Placement Team Members** of Team CCD using **MERN** stack.
  – Provided authentication for placement coordinators using **JSON Web Token**, implemented import and export of contacts form and to CSV file using **ReactCSV**.

- **Other Projects :** **Smart City Management System, Research Paper Labeller, Stock Price Predictor**

TECHNICAL SKILLS

- **Programming Languages**: C,C++, Python, JavaScript, TypeScript, Java
- **Web Technologies**: HTML, CSS, JavaScript,TypeScript, React, NodeJS, Django, NextJS, NestJS, Bootstrap
- **Key Courses**: Data Structures & Algorithms, Operating System, Computer Networks, Data Base Management System
- **Machine Learning**: PyTorch, TensorFlow, OpenCV, Matplotlib, Numpy, Pandas, SQL
- **Miscellaneous**: MySQL, Postgres, Redis, Git, New Relic, MongoDB, Jenkins, Docker

ACHIEVEMENTS AND EXTRACURRICULARS

- **Conference Paper**,Fully funded research internship with a $15,000 grant and had a paper published at the ICICS conference.
- **1st Prize at CSEA Hackathon**, Won the first prize in CSEA Hackathon for Auto Plagiarism Checker among 500 students.
- **Glod Medal in 2023,Silver Medal in 2024 in Inter Hostel Tech Meet**,Stock Price Predictor and Research Paper Labeller Event.
- **DSA and CP**,800+ questions solved on Leetcode, Codeforces, and InterviewBit with a maximum rating of 1442 on Codeforces.
- **Placement Coordinator** ,PC in Placement Team which onboarded 500+ companies that recruited 1200+ students at IIT Guwahati.
- **National Chess Champion**,**4th position in India** and 3rd position in Haryana State Chess Championship
- **All India Rank 1206**, among 1 million candidates in JEE Exam for admission in IIT and AIR 24 in Sarvottam Parakh Exam.
- **Shraman Foundation Scholar & HDFC Scholar**,Received 2 Merit Scholarships awarded to top students from IITs in India