AMAN MISHRA

 github.com/Aman2632 | linkedin.com/in/aman005 | aman005mishra@gmail.com | +91-7431049767

EDUCATION

B.Tech | Indian Institute of Technology Kharagpur, India　　　　　　　　　Jul 2019 - Apr 2023
Industrial and Systems Engineering [Major] • Computer Science and Engineering [Minor] • AI [Micro]　　GPA: 8.77/10.0

EXPERIENCE

Honeywell Technology Solutions　　　　　　　　　　　　　　　　　　　May 2022 - July 2022
Software Development Intern　　　　　　　　　　　　　　　　　　　　　Bangalore, India
- Designed and implemented **Download Service** for the **next generation aircraft software** ThunderBolt, built by Honeywell.
- Used **Bulk Data Transfer API** to transfer the aggregated logs from DPMs to Onboard Maintenance System (OMS).
- Implemented **multi-threading** logic in C++ to handle both aggregation and transferring of logs to OMS simultaneously.

Ethan AI　　　　　　　　　　　　　　　　　　　　　　　　　　March 2022 - May 2022
Software Development Intern　　　　　　　　　　　　　　　　　　　　　Singapore
- Made Ethan App backend based on **microservices architecture**, wrote **REST APIs** to connect it with third-party services.
- Made a **Search Engine** to search documents based on extracted metadata, using **Apache Tikka** and **ElasticSearch**.
- Implemented features to support search of documents across Local Drive, **AWS S3** Buckets, Google Drive, and **Dropbox**.

YourPhysio　　　　　　　　　　　　　　　　　　　　　　　　October 2021 - Feb 2022
Software Development Intern　　　　　　　　　　　　　　　　　　　　　Bangalore, India
- Made **YourPhysio WebApp**, wrote REST APIs, AWS Lambda functions to migrate from Airtable to Postgres database.
- Implemented feature to display patient's medical history by parsing medical reports from **MongoDB** and **Postgres**.
- Automated the process of creating a patient profile on Physitrack,**sending WhatsApp notifications**, and **raising Freshdesk tickets** for entities involved, by using Physitrack and Freshdesk APIs and RazorPay,LeadSquared webhooks.

PROJECTS

Chess AI　　　　　　　　　　　　　　　　　　　　　　　　　　　Jan 2021 - Apr 2021
- Created Chess Engine in C++ using AI algorithms which can play an interactive game against a user through the terminal.
- Implemented **Minimax Algorithm** and **Alpha-beta pruning** to decide move for Chess AI based on the current game state.

Deep Learning Based Object Detection | Term Project | Guide: Prof. Adway Mitra　　　Mar 2021 - May 2021
- Worked on deep learning based object detection models to detect objects both in images and vides
- Created Real-Time object detector based on YOLO algorithm using OpenCV and Python, trained over the COCO dataset

Secure Private Key Generation from Biometric Data Using Deep Learning | Bachelor's Thesis Project　　Aug 2022 - Dec 2022
- Guide: Prof. Adway Mitra, Centre of Excellence in Artificial Intelligence, IIT Kharagpur
- Worked on devising a deep learning based approach to generate **revocable private key** from biometric data
- Improved the accuracy, **security** and **privacy** issues in current techniques by using Binary Code Mapping and Random Permutatation Generation techniques. Trained neural network for **Enrollment** and **Reconstruction** of key from biometric

COMPETITIONS

Finalist | Smart India Hackathon [SIH] 2022　　　　　　　　　　　　　　　Feb 2022 - Aug 2022
- Selected as **National Finalist** in SIH 2022, organized by the **Ministry of Education, Government of India**.
- Worked on creating a **Project tracking and management system** for the Ministry of Rural Development.

Competitive Programming　　　　　　　　　　　　　　　　　　　　　2021 - 2022
- **Google KickStart:** Secured global rank **131** (2022'G), **225** (2022'F), **331** (2022'E) out of 10,000+ participants
- **Google CodeJam:** Qualified for **CodeJam 2021** round 1 out of 37,000+ participants and secured global rank **2,098**
- **Facebook HackerCup:** Qualified for **HackerCup 2022** round 2 out of 35,000+ participants, ranked **1422** in Round 2.
- Achieved maximum rating of **2133** (**5 Star**) on CodeChef and **1728** (**Expert**) on Codeforces.
- **CodeChef**: Secured global rank **24** (R'47) and **53** (May Lunchtime) out of 6,000+ contestants
- **Codeforces**: Secured global rank **424** (R'744) and **521** (R'798) out of 20,000+ contestants

Bronze Medallist | Inter Hall Open Soft, IIT Kharagpur 2022　　　　　　　　　　2022 - 2022
- Part of the Bronze Medal winning team in InterHall Open Soft Competition, IIT KGP among **20+** participant halls.
- Setup **HAProxy** service for efficient **round robin** redirection for **loadbalancing** to endpoints on cloud and datacenter.
- Enabled a **microservices architecture** where endpoints were **dockerized** and hosted on **AWS**/**Azure** virtual machines.

Open IIT Data Analytics | Brillio | Music Records Royalty Prediction　　　　　　　Feb 2021 - Mar 2021
- Part of 6 member team for Data Analytics Team of LBS Hall for Open IIT Data Analytics Competition 2021
- Worked on Exploratory Data Analysis (EDA) to analyze popularity of songs of different genera

POSITIONS OF RESPONSIBILITY

- Served as **Core Team Head** of Technology Transfer Group, IIT Kharagpur.
- Served as **General Secretary** of the Industrial and Systems Engineering Department Society.

RELEVANT SKILLS AND COURSEWORK

Programming Languages: C, C++, Python, JavaScript, TypeScript, Go, Matlab
Miscellaneous: AWS, Git, React.js, Node.js, Django, ElasticSearch, MongoDB, PostgreSQL
Courses: Programming and Data Structures, Algorithms, ML, Information System, Probability and Statistics

ACHIEVEMENTS

- Secured AIR **4401** in Joint Entrance Examination (JEE) Advanced 2019 out of more than 0.17 million candidates.
- Secured All India Rank **2632 (99.8 percentile)** in JEE Mains 2019 out of more than 1 million candidates.
- Secured All India Rank **62** in West Bengal Joint Entrance Examination (WBJEE) 2019 out of 0.15 million candidates