Vidit Agrawal

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ACADEMIC BACKGROUND

University of Maryland, College Park — Aug 2023 – Present
Masters in Software Engineering — **GPA: N/A**
Indian Institute of Technology, Roorkee — July 2017 – June 2021
B.Tech. in Electrical Engineering — **GPA: 8.055/10.00**

TECHNICAL SKILLS

Tools: System Design, DSA, Database Management, Operating System, ML Algorithms, DL Frameworks, Graph Theory

Languages: C, C, C++, Python, JavaScript, Java, R, SQL, PHP, MATLAB

Frameworks: React.js, Node.js, Postman, Flask, Devops, Azure, Scikit-Learn, PyTorch, Keras, TensorFlow

WORK EXPERIENCE

Microsoft Pvt. Ltd. — Noida, India
Software Developer — *July 2021 – Aug 2023*

- Worked in M365 Buildout Coordinator, Special Clouds team. Contributed to areas: Core Planner, CIS, Griffin D/D2, AAD App.
- Wrote design workflows, unit tests in C and .Net, and utilized Azure resources.
- Led a core area, collaborated with partner teams, participated in design and PR reviews, and conducted knowledge sharing sessions. Closely worked with Senior Engineers, Program Manager and Architects.
- Introduced methodologies and best practices enhancing product definition, release processes and service customization as per user needs.

American Express — Gurgaon, India
Data Analyst Intern — *May 2020 – July 2020*

- Delivered the project, "Time Series Forecasting Model using Geo-Aggregated Data", targeted to predict the effect of COVID-19 on credit card demand and prospect acquisition.
- Demonstrated detailed exploration, EDA, and Time-Series Models in python as well as Panel Data regression in R using open-source data affecting US financial market.
- Utilized Google APIs and tools such as GCP, Google Trends and Google Keyword Planner.

Jawaharlal Nehru University — Delhi, India
Java Winter Intern — *Dec 2018 – Jan 2019*

- Used Java RMI and basic PHP to code a servlet question-answer application.
- Utilized a different server for storing the database using MySQL, transferred questions across to create a quiz, and displayed the final score and time taken on simple UI.

PROJECTS

Crime File Management | React.js, Firebase, Python, ML Algo, Time-Series Analysis — Sept 2020 – Apr 2021

- Created a web-application for online registration and status check of complaints using React JS on frontend, Firebase for database and python for crime prediction.
- Implemented separate login for visitors, registered users, administrators, and selected police branches. Completed and presented design flow with both high-level and low-level design.
- Added ML classification and time-series analysis models to predict type of crime most likely to occur at given time, region-wise. Also added a visualization dashboard on frontend.

Data-Driven Prediction of Battery Cycle Life Before Capacity Degradation | DL — Jan 2020 – May 2020

- Used neural networks-based approach to predict the remaining lifetime of Lithium-Ion batteries using details concerning a few charging-discharging cycles.
- Designed and Implemented a multi-layer CNN using TensorFlow 2.0 with Keras as the backend to create a state-of-art solution.

Movie Recommendation Web Application | React.js, Flask, ML Algo, NLP — July 2020 – Sep 2020

- Developed a Full Stack application for movie suggestions using React JS, Flask, and Machine Learning techniques.
- Utilized NLP and Cosine Similarity for recommending top 10 movies as per the filters based on Genre, Actors, Director, Language, Popularity. Deployed on Heroku Cloud Server called blackboxasv.heroku
- Implemented Sentiment Analysis to show User Reviews using Emojis as per the sentiment.

Flood Rescue Drone | Drones, DL Framework, YOLO, Rasberry PI   Feb 2019 − Mar 2019
- Detected flood victims using the YOLO framework, a DL algorithm for real-time object detection and sent their GPS location to the rescue centre using Quadcopter and Raspberry Pi.
- Displayed in Shrishti '19, IIT Roorkee Annual Techno-Hobby Exhibition and was the leading showcases in the exhibition.

AWARDS & ACHIEVEMENTS

Inter IIT Cultural Meet'19 Acrylic Painting - 6th pos among pan-India
Dare2Compete Online Hackathon'20 - 8th pos among 6700+ participants
Coderulon'20, IIT Roorkee - 6th pos among 4000+ participants
Intra-College Badminton and Table Tennis - 1st pos in singles-doubles in year 2017-20
IITR Heritage Fund Excellence Award'21 - best all-rounder with prize money of of INR 10k

POR AND EXTRA-CURRICULAR ACTIVITIES

Artificial Intelligence and Electronics Society (ArIES), IIT Roorkee   *May 2020 – May 2021*
Joint Secretary
- Worked in the field of computer vision and object detection models such as YOLO, InceptionV3 and OpenCV.
- Worked on microelectronics such as Arduino, Raspberry pi, encoders, and various sensors in several projects.
- Led to the foundation of Aero Club, ArIES, a club dedicated to projects on RC planes and drones.
- Mentored students of the first and second year on different technical projects.

Fine Arts Society, IIT Roorkee   *May 2020 – May 2021*
Add. Secretary
- Led IIT Roorkee Fine Arts contingent comprising 14 individuals for Inter IIT Cultural Fest'19 at IIT Bombay.
- Organized and participated in Darpan, annual art festival, IIT Roorkee.

Consulting and Analytics Group, IITG   *Apr 2020 – June 2020*

- Explored and implemented EDA, Data Pre-processing, Scrapping and various Machine Learning algorithms in "Summer Data Science Boot Camp" held by CAG, IIT Guwahati.
- Predicted IBM employee attrition in covid for Kaggle Competition-Capstone Project; secured top 10 perc.

Codefundo++, Microsoft   *Oct 2018*

- Successfully built an android application, "Forum of Disaster Management", responsible to tackle lack of public awareness in case of catastrophe using Android Studio and Firebase.
- The app was a social platform - allowed people to tag pictures of 'disasters' along with their GPS location on a map to alert the residents and authorities in these locations.