Manan Agrawal

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May 2024 graduate seeking full-time opportunities in Software Development

Education

M.Sc. Economics and B.E. Electrical & Electronics, *BITS Pilani* | Pilani, India — *2019-24*

Achievements: Got Merit-Cum-Scholarship among 10% students of BITS Pilani
Courses: Probability and Statistics | Computer Programming | Object Oriented Programming | Operating Systems

Experience

Amazon Development Centre, *Software Development Engineer Intern* | Gurgaon — *Jul 2023 - Dec 2023*
- Boosted response time by **30%** by integrating **AWS CloudWatch** enabling Anomaly Detection alarms during deployment
- Developed a custom exception handler for **AWS Lambda**, making it send message to custom AWS SQS DLQs based on exception type
- Raised test coverage from **33% to 91%** by crafting more than **50 Mockito** unit tests for a Spring-based service.

MCEME Secunderabad, *Research Intern* | Remote — *May 2021 - July 2021*
- Fine-tuned **Mozilla DeepSpeech** model to accurately transcribe spoken Chinese into text
- Achieved a maximum BLEU score of **0.32** with a Chinese to Hindi text translator developed using an **LSTM-based** model
- Implemented end-to-end usage of the ML model by integrating it with a **Python-based GUI** and **IoT** devices

iLRNU Inc., *Fullstack Developer Intern* | Remote — *Sep 2020 - Dec 2020*
- Collaborated with the team on the **2.0 update** of the **React.js website**, revamping the design and introducing new functionalities
- Enhanced the user-friendliness of the main website, leading to a **20% surge** in daily user count
- Conducted a seamless migration of the existing **Node.js**-written **MySQL** database to **MongoDB** collections

Skills

Programming	Python, C/C++, Java, Matlab, Git, JavaScript, Typescript, AWS, Solidity(Ethereum), Golang, HTML/CSS
Frameworks	React JS, React Native, Flutter, TensorFlow, PyTorch, NodeJS, Django, Flask
Software	Linux, Tensorflow, Pytorch, Docker, OpenCV, Figma, Adobe XD, CorelDraw, AutoDesk, Scipy, Numpy
Certifications	Deep Learning Specialization, DeepLearning.AI – (2021)	Machine Learning, Stanford Online – (2021)

Projects

Understanding Impact of Managerial tone of Firm Value — *Aug 2022 - Jul 2023*
Supervisor: Dr. Byomakesh Debata
- Analyzed annual reports of more than **500 companies** Annual Reports from NSE using text-to-numerical analytics
- Achieved a **91%** accuracy in utilizing a fine-tuned **finBERT** model to discern the correlation between managerial tone and Firm Value

Blockchain for Agricultural Supply Chain — *Aug 2022 - Jan 2023*
Supervisor: Dr. Byomakesh Debata
- Analyzed **blockchain** potential for **Supply Chain Finance (SCF)** in Indian agricultural food chains, prioritizing traceability
- Implemented a **React based web3** & **smart contract** solution to bolster data security and streamline SCF in India's agriculture sector

Google BERT QA on SQuAD Dataset — *May 2022 - Jul 2022*
Personal Project
- Achieved an EM score of **86.9** and an F1 score of **93.15** by implementing Google BERT on the SQuAD dataset
- Optimized the model to handle context documents over 512 words efficiently, and integrated React JS for user-friendly usage

Enhancing UAV-Captured Pavement Imagery in Poor Visibility — *Jan 2022 - April 2022*
Supervisor: Dr. Pratik Narang
- Created a cutting-edge deep learning pipeline for pavement health monitoring, overcoming limitations in low-visibility conditions
- Achieved **93.34%** accuracy with an inference time of **0.154 sec.**, offering efficient solutions for road health monitoring tasks

Position Of Responsibility

Department of Visual Media, *BOSM Coordinator* — *Aug 2021 - Jul 2022*
- Led a team of **35 members** to develop website and handle registrations for BPL 2022, with over **1500+ team registrations**
- Contributed to the development of websites for renowned BITS festivals as a member, accommodating footfalls **exceeding 100,000**.
- Implemented payment, login, and registration procedures utilizing technologies like **React, Django**, meeting production standards.

NSS BITS Pilani, *Coordinator* — *May 2021 - May 2022*
- Conceptualized and led a cross-functional team of 6 in the creation of the **official website** for NSS BITS Pilani in **React.JS**
- Planned and organized the first online educational initiative in the organization for students from 6th to 10th class.
- Organized a 3-day talk series on Cybersecurity given by speakers from McAfee and Cisco.

GDSC BITS Pilani, *Web Development Head* — *Aug 2020 - July 2021*
- Planned and organized events like **Decode** and **Code Charades** during APOGEE 2021 attended by **150+ participants**
- Facilitated the **30 Days** of Google Cloud program by addressing queries regarding cloud technology and program specifics.