Nandini Agrawal

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EDUCATIO

Columbia University   New York, NY
Master of Science in Computer Science   Dec 2022
GPA: 3.79/4.0

Ashoka University   Haryana,IN
Postgraduate Diploma in Advanced Studies,Bachelor of Science   May 2021
Major: Computer Science; GPA: 3.96/4.0 (Diploma) and 3.82/4.0 (UG).
Honors/Awards: Summa Cum Laude, Dean's List, Gold Medal for Academics.

WORK EXPERIENCE

Intuit   San Diego, CA
Software Engineer at Futures,Previously with UI Platform   Feb 2023 - Present
- Building agent workflows using the LangGraph framework to support different features in different products within the intuit ecosystem.
- Collaborated with cross functional teams and spearhead the development of innovative features for TurboTax contributing to the enhancement of user experience and overall product functionality.
- Maintained a high level of availability and responsiveness by participating in on-call rotations, addressing critical issues and ensuring the reliability of TurboTax services.
- Utilised Splunk for in-depth log analysis and troubleshooting, proactively identifying potential issues and implementing preventive measures to enhance system performance.

Columbia University   New York,NY
Columbia Data Science Institute Scholar   Jan 2022 - May 2022
- Developing a collaborative predicting market where users are incentivised in case predictions are correct. Tools leveraged are: Python, Postgres SQL, Django, HTML, CSS

Ashoka University   Haryana,IN (Online)
Research and Software Development Intern   Jun 2020 - Aug 2020
- Developed Covidbloc, a system involving an android(Flutter) mobile application and a web portal(Vue) with blockchain powered contact tracing (NodeJS server and Hyperledger Fabric) to track and prevent the spread of COVID-19.

Kings College London and Trivedi Centre for Political Data   London,UK (Online)
Data Analytics Intern   May 2020 - Aug 2020
- Created an automated scraping system using Selenium to extract and clean useful documents released by the Indian government to tackle the Covid-19 pandemic.
- Executed a document classifier using NLP techniques to classify these documents topic wise.

SKILLS

- Technical: Python, Langchain, Langgraph, OpenAI, Postgresql, React, Typescript, Splunk, AWS components,NodeJS, Javascript, Docker, Selenium, MongoDB, NoSQL,HTML/CSS, Django, Github, Jupyter Notebook, Postman, Flutter.

PROJECTS

Audio based Question & Answer Platform, Artificial Intelligence   Oct 2021 - Dec 2021
- Created a mobile application where users can ask and answer questions on any given topic using an audio-recording mechanism. It also facilitate recommendations (questions and topics) based on user history.
- Accomplished using React, Postgresql and AWS services such as S3 bucket, SQS, Elastic search, Lambda and API Gateway.

Synthetic Data Generation and Secure ML, Privacy Preserving Machine Learning   Aug 2020 - May 2021
- Generated synthetic data in python with the help of conditional Generative Adversarial Networks to model sexual harassment cases in India.
- Implemented a linear regression model over a socket in a secure 2 party environment as per the protocols mentioned in the Secure ML paper. Programmed a Federated learning model (from scratch) on the MNIST fashion data set to compare with other models .

Image Coloriser and Automatic Essay Grader, Machine Learning   May 2020
- Built an Image Coloriser designed to convert black and white images to coloured images using a Convolutional Neural Network model and a subset of the LFW dataset.Implemented a bidirectional LSTM based essay grader using Hewlett data corpus.
- Executed using these tools: Python, Machine learning libraries - Keras, Tenserflow.

Hyperfunds, Blockchain Development   Mar 2020 - May 2020
- Developed a distributed application to help faculty at Ashoka University reliably spend research funds with approval from the right administrators (Tools : Hyperledger Fabric, Python, NodeJS, REST, Docker, Amazon Web Services).

PUBLICATIONS

- "BlockSim-Net : a network based blockchain simulator", Turkish Journal of EE and Computer Science, March 2022