Aviral Jain

Graduate, Indian Institute of Technology Kharagpur
Artificial Intelligence and Machine Learning (**M.Tech**) + Agricultural and Food Engineering (**B.Tech**)
Micro-Specialisation in Entrepreneurship & Innovation

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EDUCATION

Year	Degree/Exam	Institute/School	CGPA/Marks
2023	B.Tech + M.Tech Dual Degree	Indian Institute of Technology, Kharagpur	8.88/10
2018	All India Senior School Certificate Examination	Sir Padampat Singhania School, Kota	90.0%
2016	All India Secondary School Examination	Sir Padampat Singhania School, Kota	10/10

EXPERIENCE

Analyst (Full-Time) | Deloitte Consulting USI   **Aug '23 - Present**
• Configured and developed **pricing solutions** at Deloitte using the **PriceFX tool**, worked on key components like Dashboards and Price Grids
• Took **full ownership** in the development of **over 10 dashboards**, displaying critical business metrics such as Price Guidance, Transactions
• Led the build of a **proprietary Price Optimization module** within PriceFX, resulting in a significant reduction in external operational costs
• Actively contributed to the **internal AI Council**, drove the education of practitioners in terms of the latest tools and practices related to AI
• Achieved a notable **bronze** standing in a **firm wide Gen-AI Quiz**, highlighting commitment to staying informed about latest AI technologies

Software Developer (Internship) | Track and Trace, Honeywell   **May '22 - Jun '22**
• Worked in an agile production environment with **100+** UX design iterations for a building a redesigned Track & Trace for Manufacturers portal
• Integrated the Serialization Engine to the portal using **React.JS** and embedded a dynamic map to the Dashboard using **GoogleMaps API**
• Built docker container clusters on **AWS**, utilized **Kubernetes** and **Docker** for the runtime environment of the CI/CD deployment pipeline

Data Science Researcher (Internship) | ixigo   **Feb '22 - Apr '22**
• Used **Survival Analysis** to generate probabilistic time delta predictions for pre-emptive caching of flight search and price change data
• Trained, fine-tuned and benchmarked several **Survival models,** achieving **95%ile** prediction accuracy within a **180s absolute error** window

Data Scientist (Internship) | OneCard, FPL Technologies   **Feb '22 - Mar '22**
• Implemented an in-house **address standardization API**, which parses rough addresses and restructures them into a standardized format
• Extracted primary components of addresses using **Named Entity Recognition**, exposed the feature as an HTTP endpoint using **REST APIs**

PROJECTS

Deep Learning for Emulation of Spatio-temporal Processes | Masters Thesis Project (github_1, github_2)   **Jul '22 - May'23**
• Built an autoencoder based weather prediction model to forecast different climate variables using a novel **Spatial Transformation Network**
• Implemented an **inexpensive deep learning emulator** which can mimic an Agent Based Simulator Model for Covid-19 epidemic modeling

Wheat Head Identification for Yield Monitoring | Bachelors Thesis Project (github)   **Sep '21 - Dec '21**
• Trained, fine-tuned and benchmarked several **image detection** models to detect and count wheat heads in a given image from a wheat field

Multi Agent Path Planning for Precision Agriculture | AI Course Project (github)   **Sep '21 - Nov '21**
• Modeled the **multi agent path finding problem** for managing swarms for precision agriculture, using a **Conflict Based Search** algorithm

Breast Histopathology Image Segmentation | Machine Vision Lab, IIT Roorkee (github)   **Dec '20 - Feb '21**
• Built several **classification** and **segmentation** models for identifying cancer cell nuclei in benign and malignant Breast Ultrasound images
• Benchmarked several **adversarial models** like c-GAN, Res-UNet+, and achieved excellent results over metrics like Dice (**88%**), Jaccard (**93%**)

COMPETITIONS

Run with the Giants | SP Jain Institute of Management | National Finalist   **Jun '21 - Jul '21**
• Analyzed Stripe's business model and market position, suggested strategic initiatives to tackle problems faced during the Covid-19 pandemic

Drishtee's Tech Led Innovation for Rural Entrepreneurs | 9th Inter IIT Tech Meet | Gold Medal   **Mar '21 - Apr '21**
• Performed primary research among 100+ survey candidates; validated the product-market fit; led the design team for the IIT KGP contingent

Hult Prize Challenge, IIT Kharagpur | Campus Finalists   **Nov '20 - Dec '20**
• Proposed a systematic storage and sale platform for crops to minimize wastage in the domestic food supply chain and improve food security

SKILLS

Languages: C++, Python, Groovy, Java, Javascript, SQL **Libraries:** pandas, PyTorch, Tensorflow, Keras, sklearn, PIL, OpenCV, NLTK, React
Skills: Web Development, Agile Methodologies, Git Version Control, Linux Shell, Microsoft Suite
Coursework: Machine Learning | Artificial Intelligence | Linear Algebra | Probability & Statistics | Data Structures & Algorithms | Entrepreneurship

EXTRA CURRICULAR ACTIVITIES

Filmmaking - Gold Medal @ Inter IIT Cultural (2019)   **Photography** - Head @ Technology Filmmaking and Photography Society (2020-21)
Ad Design - Silver Medal (2018-19) and Gold Medal (2019-20) @ General Tech Championship, Gold Medal @ Brand-Design - Springfest (2019)