

## ABOUT

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Data scientist with 3+ years of experience designing and deploying advanced AI solutions, including AI agents, Generative AI, and causal inference models. Proven ability to leverage machine learning, statistical analysis, A/B testing, and full stack big data pipelines to drive product innovation. A strategic and collaborative problem solver who transforms complex challenges into scalable solutions that boost business performance and profit.

## SKILLS, CERTIFICATES AND BLOGS

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**Technologies:** Python, C++, Cuda C, SQL, R, DoWhy, Causal-learn, SK-learn, Pandas, SciPy, NumPy, PyTorch, Transformers, DeepSeed, Airflow, Hive, PySpark, AWS Services, GCP, Docker, Git, Asana, Jira.

**Certificates:** [Hugging Face Agents](#), [ML, NN & Deep Learning](#), [Convolutional NN](#), [Improving Deep NN](#).

**Blogs:** [Cuda C++: Basics to flash attention](#), [Math behind diffusion models](#), [Stable diffusion - 3 theory](#).

## WORK EXPERIENCE

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<b>SPRIGHUB INC</b>	Gen AI, Agents, Machine Learning, Causal Inference, Experimentation, POC	Sep 2022 - Nov 2024
<b>DATA SCIENTIST</b>	Statistical Methods, Data-driven recommendations, Analytics and Insights, ETL	Remote, India

- Collaborated with the **CEO**, **CTO**, and global teams to define **roadmaps** and implement solutions for **marketing and customer analytics**.
- Designed and deployed **advanced statistical and machine learning methods** that provided actionable insights for **5 clients** with over **50M<sup>+</sup> users**, generating more than **\$17M<sup>+</sup>** in revenue.
- Led the complete development of an **AI agent** to automate **marketing analytics** and **dashboard generation**. Integrated core modules, optimized models with **Q8/NF4 quantization**, fine-tuned with **LoRA** and **DeepSpeed**, and deployed using **AWS Lambda** and **AWS Glue**, saving **100<sup>+</sup> man-hours/week** and enabling **real-time insights**.
- Developed a **Bayesian MMM model** to optimize digital marketing budgets. Automated weekly model tuning and execution of data pipelines using **Airflow**, **AWS Glue**, **AWS Lambda**, **PySpark**, and **SQL**, leading to a **14%<sup>+</sup> ROI** per client.
- Researched and deployed scalable **Causal Inference models** for user segmentation, churn, and email targeting, helping a pilot customer save **\$20K**.
- Used **DML**, meta-learners, **GRF**, and **IPW** for promotions targeting and evaluated models with **PEHE** and policy risk. Deployed on **AWS SageMaker**, potentially saving **\$2M<sup>+</sup>** for a client.
- Co-developed an **Experimentation Platform** to optimize campaign groupings by integrating **frequentist** and **bayesian** statistical methods.
- Applied techniques such as **t-tests**, **Mann-Whitney U**, **CUPED**, and the **delta method** to measure lift, driving a **34% QoQ increase** in marketing **revenue** for a key client.
- **Led a team of five** to create a standardized template for migrating **300M<sup>+</sup> records** from **GCP** to **AWS** using **SQL** & **PySpark**. Streamlined a 10-step manual process into a single **automated flow**, enabling faster insights.
- Built anomaly detection, root cause analysis, and KPI forecasting models, extensively used by a client with **15,000 locations** and **\$69M<sup>+</sup>** in assets, resulting in a **\$10K/week** increase in revenue.

<b>TECHNIP ENERGIES</b>		Feb 2021 - Sep 2022
<b>ENGINEER</b>	Machine Learning, Deep Learning, Computer Vision, Advanced Control Theory	Mumbai, India

- Coordinated with **Datasheer Digital** to develop a **computer vision model** for identifying, categorizing, and linking symbols in P&IDs, automating the process and saving **500 man-hours/week**.
- Developed a preliminary design of the control system architecture and control logic for a polybutadiene rubber plant, IOCL Panipat.
- Designed process control loops like cascade, split range, ratio control, etc, to regulate the process parameters.

## EDUCATION

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<b>B.Tech in Control Engineering</b> , National Institute of Technology Tiruchirappalli	Jul 2016 - Jun 2020
<b>Minor in ECE</b>	
<b>CGPA:</b> 8.22 / 10	