

Harsh Desai

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EDUCATION

Vellore Institute of Technology, Vellore

Jul'19 - Jul'23

B. tech - Mechanical Engineering

Vellore, IND

- Special Achievers Award recipient 2021-22
- Successfully built & launched a solid motor rocket to an altitude of 10,000ft

SKILLS SUMMARY

Languages: Python, R, SQL, JAVA, MATLAB

Web: HTML5, JavaScript, Node.js, ReactJS, Flask

ML Frameworks: TensorFlow, PyTorch, LangChain

Data Tools: Tableau, Google Data Studio, QGIS, BigQuery, Google AppsScript, AppsFlyer, PowerPoint

Business Facing: GA4, E-comm Opt., Amazon Marketplace, Google & Facebook Ads, SKAdNnetwork, DCF Valuation

WORK EXPERIENCE

Predictive Insurance Modeling for Agriculture

Sep'23 – Present

Research Assistant, @ Christ University

Pune, IND

- Deploying a TensorFlow model for comprehensive weather prediction using time-series data.
Objective: Enhance weather forecasting to refine insurance rate predictions for the Agricultural Sector.
- Leveraging GeoSpatial data with QGIS + image processing to analyze crop & soil for insurance risk assessment.
Goal: Optimize premium adjustments based on real-time climate insights and crop/soil health.

Marketing Analytics Intern

Jan'23 – Jul'23

ET Medialabs Pvt. Ltd.

Noida, IND

- Efficiently Executed Growth & HyperGrowth Strategies to enable a sustainable rate of Customer Acquisition.
- Dealt with extensive Marketing Analytics and Consumer Pattern recognition to improve Marketing performance

R&D Intern - Simulations for NSTL's IRSS

Jun'22 – Jul'22

PEC Simulations

Visakhapatnam, IND

- Infrared Suppression: Developed an Infrared Suppression System model targeting a 50-60% IR signature reduction used in Naval ships for NSTL, India.
- Used ANSYS Fluent for simulations and OptiSlang for design optimization across extensive datasets, by conducting sensitivity analysis and Multi-objective optimization techniques.

PROJECTS

Client: Urban Company - UAE Division

Jan'23 – Jul'23

App-based Client

- Enhanced data visibility by implementing data mapping and leading SKAdNetwork sol. for iOS targeting in UAE.
- Improved UAE ad performance by increasing market share by 10% MoM and reducing CAC by 15% MoM through decoding data flows and scaling ad spends.

Client: Dr Ameet Parekh - Business Success Coach

Jan'23 – Jul'23

Lead Gen + E-commerce Client

- Engineered an S2S CRM integration, leveraging machine learning algorithms for real-time lead quality assessment.
- Designed custom Google Ads scripts, enabling extraction of non-standard metrics for deeper performance insights.
- Built a Data Studio dashboard using BigQuery via Ads Script, bypassing PostgreSQL for detailed marketing analytics.

FAA Class II Solid Motor Sounding Rocket (@ SA Cup)

Aug'20 – Jul'22

Project Technical Report: [Link](#)

- Built a Sounding Rocket targeting 10,000 ft. using a solid rocket motor capable of reaching 0.9 Mach.
- Dealt with exterior ballistics Design + Simulations, while coordinating mechanical system designs with Avionics, mitigating design conflicts, and harmonizing delivery timelines.
- Developed a PID-controlled payload with real-time pitch correction and integrated advanced avionics using dual-deployment altimetry and GPS tracking.