

ATHARVA SAMEER KULKARNI



ACADEMIC QUALIFICATIONS

Year	Degree /Board	University /Institution	%/CGPA
2025*	Post Graduate Diploma in Business Analytics	IIM Calcutta, IIT Kharagpur, ISI Kolkata	-
2019	B.Tech Electronics and Communication Engineering	Visvesvaraya National Institute of Technology, Nagpur	9.49/10
2015	CLASS XII	Royal Junior College of Science and Commerce, Dombivli	91.69 %
2013	CLASS X	Vidya Niketan School	90.73 %

KEY SKILLS/TOOLS Statistical Analysis, Agile, Programming, Leadership, Python, SQL, AWS, PyTorch, Git, Java, Tableau, R

WORK EXPERIENCE (48 Months)

Morgan Stanley		Manager	Bangalore (Feb '23 - Jul '23)
Roles and Responsibilities	<ul style="list-style-type: none"> Developed & maintained scalable applications (Margin Platform) for Prime Brokerage division of the firm Ensured release cycle changes' stability affecting the Margin Calculations and ensured a complete signoff 		
Deliverables and Leadership	<ul style="list-style-type: none"> Led data center modernization and inter-region migration (180+apps); Analyzed & optimized resources Enhanced legacy processes in 48 hrs. enabling risk managers to mitigate risk amid the 2023 bank failures 		
Fidelity Investments		Lead Software Engineer	Bangalore (Aug '19 - Feb '23)
Roles and Responsibilities	<ul style="list-style-type: none"> Full Stack developer Built & Deployed (AWS) scalable applications of Equity Fundamental Research Team Managed E2E delivery of research tools aiding Analysts & PMs managing \$3.15T Discretionary Eq. Assets 		
Key Deliverables	<ul style="list-style-type: none"> Designed & Developed: Feedback app. (saved \$121k/yr); Automated financial calculation in research notes Built Engagements tracking tool for ESG Res. team: reducing >25% time, removed management overhead Designed database systems for research reports; Enhanced Information Barrier checks for research data AWS Migration of apps (reduced 83% infra. cost); Setup custom monitoring & CICD pipelines for 23 apps Built POCs: Muni. bond digitizer (AWS Textract) ■ Knowledge Graph builder (Stanford Core NLP, Neo4J) 		
Initiatives and Leadership	<ul style="list-style-type: none"> Spearheaded the company earnings research project; Enabled research publishing with 75% less content Ensured cloud migration wrap up (54 apps) 3 weeks prior to deadline, built Tableau reporting dashboard Standardized DR and API testing strategies, Log monitoring (Datadog); Oversaw technical backlog of apps 		

AWARDS AND ACHIEVEMENTS

Academic and Professional	<ul style="list-style-type: none"> Among Top 10% ile of PGDBA Batch-9 ■ Institute Medal - Highest CGPA in B. Tech ECE 2019 Batch, VNIT Exceptional Performance Rating (Fidelity Investments) ■ HSC Exam: Top 0.5%ile; Secured 4L Scholarship
Certifications	<ul style="list-style-type: none"> Amazon Web Services (AWS) – Certified Developer Associate: Acquainted with EC2, SNS, SQS, Lambda, S3
Case Competitions	<ul style="list-style-type: none"> Ranked 1/586 - Warehouse stock mgmt. with NLQ - BITS Hyd. ■ 2/211 - Car purchasing dashboard - BIMT
Publications	<ul style="list-style-type: none"> Published IEEE conference papers at 9th ICCCNT 2018 – IISc Bangalore and IESC 2019 – NIT Meghalaya

ACADEMIC PROJECTS

Airbnb Price Prediction (Regression)	<ul style="list-style-type: none"> Predicted listing price for 75k+ Airbnb properties (26 features) with linear and polyno. regression models Treated outliers; Tackled multicollinearity with VIF & backward selection; Applied Ridge regularization Analyzed residuals with KS test & QQ plt. Built DT, RF & XGB regressor; ↑R² by 23% to 0.75 with XG Boost
NEFT Volume Forecasting (Time Series)	<ul style="list-style-type: none"> Forecasted the daily volume of NEFT transactions for a 30 - day horizon using 3 years of transaction data Conducted ADF test; Analyzed dual-seasonality (MSTL), Residuals (Ljung-Box) and order (ACF and PACF) Handled dual seasonality as an exogenous variable with SARIMAX ; Reduced RMSE by 32% over SARIMA
Diabetic Retinopathy (CNN)	<ul style="list-style-type: none"> Built diabetic retinopathy classifier (5 class, 2.8k img) with CNN, VGG16 & ResNet50 (transfer learning) Enhanced results by img. normalization, augmentation; 'Healthy' class precision-0.94, weighted F1-0.71
Email Text Summarization (NLP)	<ul style="list-style-type: none"> Built abstractive email thread summarizer (20k emails) using Seq2Seq model (LSTM) with GLoVe embed. Applied cross-attention in the encoder-decoder model; Fine-tuned the T5 transformer for better results Enhanced generated summaries, improving ROUGE-L by 38% pts to 0.44 and ROUGE-1 by 51% pts to 0.59

ADDITIONAL PROJECTS

Credit Card Default (Classification)	<ul style="list-style-type: none"> Predicted credit card default with logistic regression (30k records, 23 features); Balanced data with SMOTE Enhanced results with CatBoost, LGBM & XGB (F1 - 0.78, AUC - 0.74); Analysed feature importance (SHAP)
Document Querying (RAG)	<ul style="list-style-type: none"> Developed a RAG system leveraging LLMs for querying confidential documents using LangChain and FAISS Experimented with temperature value; Enhanced response quality with context using LangChain memory
Movie Recommender (Clustering)	<ul style="list-style-type: none"> Built a content based & user-to-user collab. hybrid recommender (MovieLens100k) Resolved cold start Used K-Modes, Hierarchical clustering & Cosine similarity; Achieved Silhouette score 0.696, Hit rate 2.66

POSITIONS OF RESPONSIBILITY & EXTRA CURRICULARS

External Relations	<ul style="list-style-type: none"> Coordinated online promotion sessions ~7k views; PGDBA regs.↑ ~43%; Mentored & Onboarded Jr. batch
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ELECTIVES : Deep Learning, Financial Risk Mgmt., Econometrics **INTERESTS** : Sketching, Sudoku, Cycling