VEDANT MISRA

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EDUCATION

The Pennsylvania State University, University Park **Aug 2024 – May 2026**
Master of Science in Computer Science & Engineering
Teaching Assistant – BA 840: Business Data Management, Smeal School of Business
Mukesh Patel School of Technology Management & Engineering, NMIMS **June 2019 – May 2023**
Bachelor of Technology in Computer Engineering (Hons. Data Science & Analytics) **GPA: 3.73/4**

TECHNICAL SKILLS

Programming: Python, Java, C/C++, PHP, SQL, Go, TypeScript, Shell, Django, ReactJS, Angular, Node, Express
DB & Cloud: MySQL, PostgreSQL, NoSQL, MongoDB, DynamoDB, Firebase, Snowflake, Redshift, AWS (EC2, RDS, OpenSearch, Glue, QuickSight), GCP, Azure, Docker, Kubernetes, Terraform, Jenkins, Ansible, IPFS
Data Science: Tableau, Power BI, SAS Viya, TensorFlow, PyTorch, Keras, Scikit-learn, SAS, MATLAB, R
Certifications: AWS Developer-Associate, Google Data Analytics, IBM Full Stack Developer, SAS VBA.

EXPERIENCE

Software Engineering Intern, Recursion Pharmaceuticals **May 2025 – August 2025**
- Built a layered SDK, CLI, and PyPI package for accessing gene-sequencing experiment data and embedded it into HEX dashboards—empowering scientists to self-serve and audit 2M+ records, eliminating manual support tickets, and accelerating issue resolution from days to minutes.

Software Development Engineer, ZS Associates **June 2023 – June 2024**
- Reduced pharmacology simulation costs by 60% and execution time from 5 days to 3 hours by implementing a MATLAB workload parallelization framework using PySpark, Athena, AWS EC2 Spot and On-Demand instances.
- Automated EC2 cluster provisioning for 10,000 vCPUs with Ansible, Node.js, and Shell, cutting spin-up time from 110 to 2 minutes using custom AMIs.
- Built a search and recommendation engine for clinical data transfer using OpenSearch and GPT-4, enabling dynamic query generation, rapid data indexing, and efficient retrieval.
- Designed a custom DQ dashboard in QuickSight, integrating Athena, S3, and Lambda to monitor vendor data compliance and integrity, reducing error detection time by 35%.

Data Science Intern, SAS Institute **Aug 2022 – May 2023**
- Delivered a transport analytics POC, resulting in 15% cost savings through optimized routes and demand forecasting.
- Optimized premium rates & active insurance policies for clients using SAS PROCOPT, reducing VAR by 36%.
- Developed SAS-VIYA visualizations into a Customer Intelligence application using ReactJS, enabling KPI tracking and streamlined portfolio management, resulting in a 40% reduction in operational costs for the BFSI sales team.
- Analyzed fraudulent insurance claims & customer-churn data to device ML-based statistical models reducing false positives by 68%.

Software Development Intern, Ernst & Young LLP **May 2022 - June 2022**
- Evaluated client IT portfolios using process mining to identify automation opportunities, estimating up to 70% enterprise IT automation and a 22% reduction in infrastructure and application maintenance costs.
- Streamlined identity access provisioning by integrating Azure Active Directory with Citrix XenApp, enabling efficient and secure policy implementation with projected savings of 50 FTEs.

Full Stack Developer, The Experitos Studio **June 2021 - Aug 2021**
- Curated a cloud-native data-driven platform to provide actionable insights to entrepreneurs using predictive analytics.
- Implemented RESTful SpringBoot APIs for data ingestion & analytics, integrated with a no-code interface, Bubble.io.
- Containerized XGBoost and regression models with Docker and deployed the system on Kubernetes, leveraging horizontal scaling, load balancing, and CI/CD pipelines for seamless feature integration and high availability.
- Achieved 92% accuracy in the Start-up-Growth Index, 85% accuracy in the Start-up-Launch Index, and 88% accuracy in Investment Readiness Analysis, providing real-time, actionable insights to entrepreneurs.

PROJECTS

Roommate Compatibility DApp. Adopted Agile methodology to engineer a decentralized MERN application with smart contracts for secure & transparent housing agreements. Led the implementation of BERT summarization & K-Means clustering, analyzing 5,560 profiles with 95.43% accuracy, refining processing times & housing allocation.

LEADERSHIP & ACHIEVEMENTS

- Presented at the IEEE Bombay Section Signature Conference (December 2022), achieving 98% accuracy in lung cancer prediction and 85.71% in NSCLC classification using 13 data mining techniques, published in IEEE Xplore.
- Secured 2nd place in Northrop Grumman's Innovation Hack Week by developing a real-time object detection system integrating Grounding DINO and YOLOv7 models.