Sameer Bansal

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WORK EXPERIENCE

AMD, Inc. (Payroll – CIEL HR Services Pvt. Ltd.) **June 2024 – Present**

Software Engineer I *Hyderabad, India*

Led key contributions to VAIFrame, an ML and AI driven dashboard enabling automation across the entire machine learning workflow by-

- Boosting UI stability through robust **Selenium** test coverage, reducing bugs by **70%**; automated deployment with **GitHub Actions** ensuring reliable health checks and faster releases.
- Enhancing model evaluation efficiency by **40%** via automation scripts to compare performance metrics across datasets and devices, significantly reducing manual testing effort.
- Optimizing model flexibility by integrating **Protobuf** and text dumps for **4+ regressors/classifiers**, and implementing **4 new hyperparameter search strategies** to enable full user control over scoring and cross-validation metrics
- Accelerating pipeline execution by modifying retrain logic to skip well-performing models, reducing retrain time by **30–40%**; validated workflow generation for **10+** experiment setups across devices.
- Improving ML report reliability by implementing multiple manifest validations and automating retrain vs inference report generation, enabling multi-experiment analysis in a single pass.
- Automating organizational structure analysis via a CLI tool that eliminated **90%** of manual **LDAP** lookups, supporting diverse output formats and flexible query handling.

AMD, Inc **July 2023 – December 2023**

Co-op/Intern *Hyderabad, India*

- Revamped an existing workflow by designing a dashboard that eliminated manual steps, saving **20**+ man-hours overall.
- The dashboard offered a range of Data And Machine Learning functionalities including **Data Analysis, Data Manipulation and Feature Engineering**. It also included features enabled by artificial intelligence that allow for the assembly of **ML Model Training and ML Model Deployment**.
- Implemented various Dashboard views like **Donut Chart, Grouped Bar Plot, Lines plot** etc. to facilitate analysis.
- Engineered multiple stages of Machine Learning workflows like **model selection, model training, model evaluation, hyperparameter tuning** and **model deployment** .

PROJECTS

Credit Risk Prediction for Loan Approvals | *Python, Pandas, Numpy, Scikit-learn, XGBoost, Shap, Streamlit*

- Built a **Credit Risk Prediction system** using **Logistic Regression, Decision Trees, and XGBoost** on the Home Credit dataset to identify high-risk loan applicants.
- **SHAP** was integrated to ensure explainable and transparent decision-making.

Predictive Analytics for F1 Qualifying Lap Times | *Python, Pandas, Numpy, Scikit-Learn*

- Developed a Formula 1 qualifying lap time prediction model using **Python, FastF1 API, and machine learning libraries (scikit-learn, pandas, seaborn**).
- Engineered features from historical qualifying session data and applied **data cleaning, imputation, and domain-specific performance** factors to enhance model accuracy.
- Built and evaluated a **linear regression** model to forecast Q3 qualifying times, delivering realistic predictions that showcase practical AI/ML skills in sports analytics.

TECHNICAL SKILLS

Languages: HTML, CSS, JavaScript, C++, Python, Java, SQL
AI & ML: Supervised & Unsupervised learning, DL, Neural Networks, NLP, RAG, LLM, Agentic AI, Gen AI
Frameworks/Libraries: Flask, Pandas, Numpy, Scikit-learn, Matplotlib, Seaborn, Tensor Flow
Databases: SQL (MySQL), NoSQL (MongoDB)
Tools: Linux, Git, Docker, Git-Hub Actions, CI/CD Pipeline

EDUCATION

Birla Institute of Technology and Science, Pilani – Goa Campus

Bachelor of Engineering in Electrical and Electronics

Modern Delhi Public School - Haryana

Class XII (96%)

ACHIEVEMENTS

- Commended for outstanding contribution and awarded **Employee of the Month** by AMD Pvt.Ltd.
- Served as **Operations head** of Department of Arts 'n' Deco in college and led a team of **150** people to deliver **200 art installations** on a total budget of **4.5 lakhs** over 3 fests