Uma Sivakumar

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EDUCATION

Texas A&M University **Texas, United States**
Master of Science in Data Science **(GPA: 3.75/4)** **Aug 2023 - Dec 2024**
Courses: AI, ML, Info S&R, Data Visualization, Parallel Computing, Statistics, Databases and Tools, Data Mining and Analysis, Maths

International Institute of Information Technology **Bangalore, India**
Certification in Advanced Data Science **(GPA: 3.71/4)** **Sep 2022 - May 2023**
Courses: Machine Learning Models, NLP, Python, Probability, Inferential Statistics, Hypothesis Testing, Data Visualization,SQL,Excel

SRM Institute of Science and Technology **Chennai, India**
Bachelor of Technology in Information Technology **(First Class with Distinction, GPA: 8.72/10)** **Jul 2015 - May 2019**
Courses: Machine Learning, Calculus, Data Structures and Algorithms, Probability and Statistics, Linear Algebra, Cloud Computing,AI

SKILLS

- **Languages:** Python, C++, SQL (Databases: Oracle, PostgreSQL, MySQL), MongoDB, R, CCL(Cerner Command Language), C.
- **Tools:** GIT, Docker, SVN, Visual Code, Visual Studio, Jupyter.
- **Libraries and Framework:** Scikit-learn, TensorFlow, NLTK, PyTorch, OpenCV, Numpy, Pandas, Seaborn, Matplotlib, sqlAlchemy.
- **Exposed to:** Apache Kafka, Spark, HBase.

EXPERIENCE

Research Assistant — Texas A&M University **(Feb 2024 - May 2024) — College Station, Texas**
- Contributed to development of risk assessment models for evaluating impact of COVID-19 on infrastructure of the US supply chain.
- Employed Bayesian Networks to model and assess risks across critical healthcare sectors, enabling data-driven mitigation strategies.
- Integrated Bayesian Risk and Decision-Making Frameworks, improving model accuracy by 20%.

Software Engineer — Siemens Technology **(Jun 2022 - Jul 2023) — Bangalore, India**
- Spearheaded development and configuration of code for new and existing solutions across 6 products (Audit, Calendar Options, IDB, Proagent, PMO, SES), resulting in a 15% improvement in overall system performance.
- Revitalized and enhanced software features innovatively to align seamlessly with evolving technical requirements, ensuring heightened user satisfaction and increased adoption rates.
- Played a pivotal role in resolving critical bugs within the WinCC graphics team, including performance and memory leak issues, resulting in a 10% improvement in system stability.

Software Engineer II & Software Engineer I — Cerner Healthcare **(Jul 2019 - Jun 2022) — Bangalore, India**
- Initiated and deployed new functionalities, such as recurring orders, contributing to code optimization and revamping of application.
- Responded to IRC calls, delivering solutions and packages within a remarkable 24-hour turnaround time.
- Directed multiple optimizations for the Millennium Scheduling Module, resulting in a 30% reduction in response time.
- Engaged in code reviews, resulting in a 20% decrease in post-deployment issues.
- Collaborated on component-level technical designs, streamlining development processes and slimming project timelines by 25%.

Software Intern — Cerner Healthcare **(Jan 2019 - Jul 2019) — Bangalore, India**
- Spearheaded transformation of a batch processing system into a near-real-time streaming system using Apache Kafka, Apache Spark, and Apache Hbase with Java.
- Attained boosted data processing speed and efficiency, resulting in a substantial decrease in data processing times.
- Led migration process efficiently, minimizing disruptions and ensuring seamless continuity in healthcare data analysis.

PROJECTS

P.E.E.R: (May'24)
- Built an educational content aggregator and recommender using PostgreSQL, Google Books, Udemy APIs, and BERT.
- Processed 100K+ records for personalized recommendations.

Traffic Signal Recognition: (Jun'24)
- Developed a CNN model with 88.9% accuracy for real-time traffic signal detection.
- Deployed in a real-time system using Python, TensorFlow, and OpenCV.

Predicted Bike-Sharing System Demand: (Dec'23)
- Used Ridge, Lasso, and ElasticNet to forecast demand, achieving 100% accuracy.
- Applied ANOVA and T-tests for validation.

Maximized Customer Retention in the Telecom Industry: (May'23)
- Implemented Logistic Regression, Random Forest, and XGBoost to achieve 91% accuracy.
- Handled class imbalance and applied feature engineering.

AWARDS & RECOGNITION

- **NOTT Award (Night On The Town):** Given to an associate for above-and-beyond contribution, (Cerner Healthcare) **March 2021.**
- **Quarterly team award – Quality,** (Cerner Healthcare): **Q1 2021.**