Amar Master he/him

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EDUCATION

University of Massachusetts Amherst - Dual Degree — Amherst, MA
BS in Computer Science with Minor in Economics — *Expected Graduation Date: May 2026*
BS in Mathematics (Data Science and Statistics)

- Relevant Coursework: OOP, Data Structures, Advanced Statistics, Advanced Linear Algebra, Reasoning Under Uncertainty; Regression Analysis, Programming Methodology, Computer System Principles, Introduction to Algorithms
- CFA Level 1 candidate — *Expected Completion : Feb 2025*

SKILLS

Programming Languages: Python, Java, JavaScript, TypeScript, HTML, CSS, C#, SQL

Technology: ASP.NET, MVC, Bootstrap, Numpy, Pandas, BeautifulSoup, PostgreSQL, Tensorflow, Keras, Scipy, React.js, Next.js

Soft Skills: Adaptability, Communication, Teamwork, Leadership, Problem-Solving

PROFESSIONAL EXPERIENCE

Software Engineer Intern — Mountain View, California, USA
Blue Dome Technologies — *Jun 2024 - Present*

- Working on GPS navigation and shortest path systems using Machine Learning.

Software Engineer Intern — Mumbai, India
Iraje - Leading Cybersecurity Firm specializing in Privileged Access Management (PAM) Solutions — *May 2024 - Present*

- Working on End User Behavior Analytics (EUBA) and anomaly detection using Machine Learning.

Software Engineer Intern — Mumbai, India
Iraje - Leading Cybersecurity Firm specializing in Privileged Access Management (PAM) Solutions — *Apr - Sep 2023*

- Developed a Risk Scorecard using a Model-View-Controller (MVC) architecture to calculate risk scores from multiple parameters and identify high-risk users logging into an organization's portal achieving an 85% accuracy rate.
- Designed the frontend using C#, Bootstrap, Apache E-Charts and ASP.net framework to display a meticulous risk profile for each user, increasing user engagement by 40%.
- Managed the backend SQL ensuring accurate and efficient data storage and retrieval for risk score calculation reducing data retrieval time by 35%.
- Orchestrated the seamless integration of frontend and backend components, guaranteeing a fluid user experience and the accurate processing of data, resulting in a 50% improvement in overall system performance.
- Devised and implemented advanced algorithms and mathematical calculations, incorporating machine learning models to determine risk scores based on a multitude of factors, thereby increasing threat detection efficiency by 60%.

PROJECTS

Stock Data Scraper and Analyzer ~ https://github.com/AmarMaster/stock_data_scraper.git

- Engineered a sophisticated stock data scraper leveraging Python, BeautifulSoup and Pandas to aggregate, analyze and visualize stock market data.
- Implemented advanced technical indicators including Moving Average, RSI, Bollinger Bands and MACD for comprehensive market analysis achieving an 85% accuracy in trend prediction.
- Developed automated daily updates and historical data management, reducing manual data handling time by 80%.
- Created dynamic and insightful visualizations and automated data processing tasks, enhancing the overall analysis workflow.
- Ensured robust data analysis and error handling mechanisms with an error rate reduced to less than 2%.

Statistical Analysis of NBA performance ~ https://shorturl.at/WdKvQ

- Conducted a comprehensive statistical analysis comparing the Boston Celtics and Chicago Bulls.
- Utilized sample data from the initial dataset to find a minimum variance unbiased estimator.
- Performed 95% confidence interval analysis to determine the precision of estimated parameters.
- Executed hypothesis testing with a 5% significance level to evaluate significant differences and relationships between the teams' performance metrics, achieved a p value of 0.0212.
- Concluded with an interpretation of results, providing actionable insights and recommendations based on statistical inference.

BreatheFree - Sustainable Technology Initiative by Volvo Cars
Lateral Farming

- Engineered an urban agriculture system using IoT for smart farming solutions.
- Developed the backend using Arduino for automated control and frontend android app for temperature and irrigation management as well as data observation.
- Implemented ultrasonic, light and heat sensors for real time crop monitoring and harvest timing notifications.
- Integrated natural rain water harvesting for sustainable irrigation.