Srii Rohit Prakash

Binghamton, NY | +1 (607) 774-7837 | sprakash1@binghamton.edu | LinkedIn | Github | Portfolio

EDUCATION

Binghamton University, State University of New York
Master of Science in Computer Science – AI track   *August 2024 – May 2026*
Cumulative GPA : 3.62 / 4.0
Bharathiar University
Bachelor of Science in Computer Science with Data Analytics   *September 2020 – May 2023*
Cumulative GPA : 8.20 / 10

PROFESSIONAL EXPERIENCE

Bridge Green Upcycle , Graduate Assistant, *AI/ML Intern* | Binghamton, USA   *July 2025 - Present*
- Engineer predictive ML models for battery State-of-Health (SoH) and Remaining Useful Life (RUL) estimation using real-time telemetry from Powin Centipede BMS.
- Design smart State-of-Charge (SoC) prediction and operational limit algorithms that optimize battery efficiency and cycle life. Establish communication pipelines to ingest and analyze high-frequency BMS telemetry, integrating AI-driven decision support into Smart BMS systems.

Prompt Infotech, *Data Analyst Intern* | Coimbatore, India   *June 2023 – December 2023*
- Conducted end-to-end data cleaning, transformation, and exploratory analysis using SQL, Excel, and Python to generate actionable insights, directly supporting 3+ strategic decisions across sales and marketing functions and built and maintained 5+ interactive Power BI dashboards with well-documented metrics and logic, performing trend, cohort, and KPI analysis.

RESEARCH EXPERIENCE

Integrated Predictive and Causal Modeling for Metastasis in Colon Cancer Patients using National Inpatient Sample,
Research Assistant
- This ongoing large-scale research, supervised by Dr. Melissa Zeynep Ertem, leverages over 40 million records from the National Inpatient Sample (2016–2022) to build a neural network-driven analytics framework for predicting metastasis in colon cancer.
- The model (AUC: 0.85) enables risk stratification, patient profiling, and subtype discovery to support clinical decision-making and operational planning. Causal inference methods (PSM, IPW) are used to quantify the impact of comorbidities (e.g., obesity, diabetes), enhancing visibility into patient outcomes and informing care workflows in healthcare settings.

PROJECT EXPERIENCE

Budget Brain – AI-Powered Ad Budget Allocation | *FastAPI, React, Gemini API, Monte Carlo Simulation*
- Designed and implemented a full-stack system to optimize monthly ad spend across Google, Meta, TikTok, and LinkedIn using market benchmarks, industry modifiers, and goal-based optimization.
- Integrated Gemini API for real-time market intelligence, combining LLM reasoning with structured mathematical models to generate transparent, source-cited recommendations.
- Built a Monte Carlo simulation engine to model CPM, CTR, and CVR variability, producing P10–P90 confidence intervals for performance estimates and delivered interactive frontend with adjustable constraints and live visualization, enabling human-in-the-loop control and rapid scenario testing.

Graph-Augmented Course Recommender with Explainable AI | *PyTorch Geometric, NetworkX, MongoDB, Streamlit , Pandas*
- Engineered a heterogeneous academic graph comprising 1,000+ students and 200+ courses with multi-relational edges encoding prerequisites, skill mappings, and enrollment history.
- Integrated Explainable AI techniques using graph attribution and node similarity to provide interpretable rationales based on skill alignment, prerequisite fulfillment, and peer influence and utilized MongoDB for graph metadata management

SmartFinancial AI | *Python, React, Node.js, MongoDB, GPT-4, LangChain, Streamlit, LSTM, Alpha Vantage API*
- Built an AI-powered stock advisor that forecasts short-term prices using LSTM models on historical OHLCV data, integrated with real-time stock quotes and financial news via automated API pipelines.
- Used LangChain and GPT-4 to explain predictions and generate natural language investment advice ("Buy/Sell/Hold") through a conversational dashboard.
- Deployed a full-stack system with React, Node.js, and MongoDB for live tracking, modular analytics, and scalable reasoning workflows.

Real-Time Detection of Denial of Service (DoS) Attacks | *Python, GNS-3* (*Published in Futuristic Trends in Information Technology*).
- Developed a real-time DoS attack detection system for IEEE 802.11 wireless networks targeting MAC layer vulnerabilities, including SYN flood and Short DIFS attacks, using change point detection to identify abnormal traffic patterns caused by malicious nodes. Applied Big Data mining techniques to optimize detection accuracy, reducing false positives by 15% and validating the system through extensive testing across 100+ network scenarios.

TECHNICAL SKILLS

Programming Languages: Python, SQL, Java, C, C++,JavaScript,HTML,CSS
Libraries & Frameworks: PyTorch, PyTorch Geometric, Scikit-learn, Pandas, NumPy, Streamlit, NetworkX, Matplotlib, Seaborn, LangChain, React.js, Express.js
Tools & Visualization: Power BI, Tableau, Excel, Jupyter Notebooks
Databases: MongoDB, MySQL, PostgreSQL