Nikhil Anil Prakash

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Master's student in Electrical and Computer Engineering at Northeastern University, specializing in Computer Vision, Machine Learning, and Software Engineering. Seeking Full-Time opportunities to leverage expertise in computer vision, machine learning, and software engineering while contributing to challenging real-world problems

EDUCATION

Northeastern University, Boston, MA **Dec 2025**

*Master of Science in Electrical and Computer Engineering - **GPA: 3.9***

Coursework: Fundamentals of Computer Engineering, Machine Learning and Pattern Recognition, Advanced Machine Learning, Machine Learning Operations

PES University, Bengaluru, India **May 2023**

*Bachelor of Technology in Electronics and Communications Engineering - **GPA: 3.31***

Minor in Computer Science

Coursework: Machine Learning, Artificial Neural Networks, Computer Organization and Digital Design, Embedded Systems, Data Structures, Algorithms

PROFESSIONAL EXPERIENCE

IT Intern, Tractor Supply Co. **May 2025 - Aug 2025**

- Implemented an end-to-end SEO and performance monitoring system leveraging Python-based ETL pipelines, data preprocessing, and anomaly detection across web crawling operations
- Orchestrated the integration of rule-based and machine learning models to compute health score and detect site-level SEO/performance regressions across 100+ web pages
- Deployed an automated business intelligence reporting framework that generates actionable insights via markdown reports and dashboards, driving visibility into web vitals and metadata compliance

Intern, Bosch Global Software Technologies Pvt Ltd. **Feb 2023 - May 2023**

- Developed inverter software functions for electric vehicles using ASCET and contributed to enhancing system functionality
- Engineered a software module in ASCET to safely switch the vehicle to a safe state upon reaching a specified voltage threshold, testing the code using a remote vehicle simulator
- Facilitated in the comprehensive documentation of ongoing projects, ensuring accuracy and completeness, while collaborating with the team to improve workflow efficiency

Summer Intern, Bosch Global Software Technologies Pvt Ltd. **Jun 2022 - Jul 2022**

- Devised a speed monitoring model using ASCET, leading to a 15% improvement in calibration precision for electric vehicle systems
- Developed a Python-based data analysis interface with statistical analysis capabilities, streamlining the monitoring and calibration process by 30% through improved data processing workflows
- Collaborated with a cross-functional team to standardize components, achieving high compliance with company norms and reducing file generation warnings by 25%

PROJECTS

Benchmarking ML Models for Boston's Weekly Weather (View)

Northeastern University **Mar 2025 - Apr 2025**

- Engineered and evaluated 4+ machine learning models (Bayesian Regression, Gaussian Process, Bayesian Neural Networks, Decision Tree) for weekly precipitation forecasting using statistical analysis of 7,000+ daily weather records from NOAA data (2005–2024), achieving a 37.9% reduction in RMSE with Decision Trees
- Implemented uncertainty quantification using Laplace Bayesian MLP, achieving 92.75% to 95% CI coverage, the highest among all models, while optimizing Monte Carlo Dropout and variational inference
- Led feature engineering and time series analysis with lagged variables, seasonal indicators, and rolling stats, contributing to a 58% improvement in MAE and 0.41 R^2 score using Decision Trees—outperforming all Bayesian counterparts in accuracy

Indian Premier League (IPL) Score Predictor (View)

Northeastern University **May 2024 - Jun 2024**

- Developed a predictive analytics model for IPL match scores utilizing Linear Regression, Decision Trees, AdaBoost, and XGBoost, achieving 82% accuracy across 500+ historical matches spanning 15 seasons
- Improved model performance by 15% via comprehensive data preprocessing and feature engineering in Python, focusing on player statistics and environmental factors
- Collaborated with two peers to refine predictive algorithms and documented the project lifecycle, presenting findings to instructors and peers to demonstrate the practical application of machine learning in sports analytics

SKILLS

Programming Languages: Python, C, C++, R, SQL, System Verilog, JavaScript

Data & Analytics Tools: Tableau, MATLAB, A/B Testing, Statistical Analysis, ETL Pipelines, Business Intelligence, SharePoint, Google Cloud Platform (GCP)

Development Tools: Linux, Git, ROS, Jupyter, SciPy, React, Docker, Airflow, DVC

Python Libraries: NumPy, Pandas, TensorFlow, OpenCV, Scikit-learn, Matplotlib, GTSAM, Open3D, Requests, BeautifulSoup

Certifications: Google Data Analytics, IBM Data Science, Machine Learning Specialization by DeepLearning.AI