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

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

Bachelor of Technology in Electronics and Communications Engineering - ***GPA: 8.27***

Minor in Computer Science

Coursework: Machine Learning, Computer Organization and Digital Design, Artificial Neural Networks, 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 crawling, data preprocessing, and anomaly detection pipelines
- Orchestrated the integration of rule-based and machine learning models to compute health score and detect site-level SEO/performance regressions
- Deployed an automated 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, streamlining the process by 30% and enhancing monitoring and calibration tasks
- Collaborated with a cross-functional team to standardize components, achieving high compliance with company norms and reducing file generation warnings by 25%

PROJECTS

Weekly Boston Weather (IPL) Score Predictor

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 NOAA data from 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 with Monte Carlo Dropout and variational inference.
- Led feature engineering 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

Northeastern University **May 2024 - Jun 2024**

- Developed a predictive model for IPL match scores utilizing Linear Regression, Decision Trees, AdaBoost, and XGBoost, achieving 82% accuracy across over 500 historical matches
- 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, System Verilog, Javascript

Engineering Tools: SolidWorks, MATLAB, SharePoint, SQL, Tableau, MS Office, Linux, Git, ROS, Jupyter, Scipy, React

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