

Darshan Raja

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SUMMARY

Motivated and detail-oriented graduate in Information Science and Engineering with a strong foundation in machine learning, data science, and artificial intelligence. Experienced in developing predictive models and applying interpretability techniques to enhance transparency and efficiency. Passionate about integrating AI solutions into healthcare and transportation systems to drive impactful innovations. Seeking a Ph.D. opportunity to contribute to advanced research in data science and machine learning.

ACADEMIC PERFORMANCE

Masters of Science Information Technology, Concentration - Advance Data Discovery

- University of North Carolina at Charlotte
- Graduation Year: May-2025 | GPA - 4.0

Bachelors of Information Science and Engineering

- Kumaraguru College of Technology, Coimbatore, India
- Graduation Year: 2023 | GPA - 3.52

12th Grade

- Geethanjali All India Senior Secondary School, Erode, India
- Graduation Year: 2019 | Grade: 74%

10th Grade

- Geethanjali All India Senior Secondary School, Erode, India
- Graduation Year: 2017 | Grade: 94%

TOEFL: Overall: 85 (Speaking: 24, Listening: 21, Reading: 20, Writing: 20)

WORK EXPERIENCE

Indium Software Pvt. Ltd, Chennai

Feb 2023-May 2023

Software Associate Intern

- Developed the "Educational Consultancy Application" for automated university recommendations.
- Integrated automation scripts with JIRA and email systems for lifecycle management.
- Worked with load balancers and applied automation strategies.
- Gained hands-on experience with machine learning algorithms in product development.

Phoreuia Pvt. Ltd

Jan 2022 - Aug 2023

Software Developer Intern

- Developed a neural network model for speech recognition in warehouse operations.
- Delivered a model with 96% accuracy and ensured smooth request handling for real-time predictions.

RESEARCH & PROJECT EXPERIENCE

Heart Rate and Heart Disease Prediction

Aug 2024 – Dec 2024

- Developed models to predict heart rates and diagnose heart disease using machine learning techniques.
- Highlighted the integration of AI with healthcare to enhance diagnostic precision and efficiency.

Length of Stay Prediction

Aug 2024 – Dec 2024

Created predictive models to estimate hospital stays using real-time datasets, including PhysioNet. Applied interpretability techniques like SHAP, LIME, and Partial Dependence Plots (PDP) for transparency and optimized accuracy and F1 scores.

RESEARCH & PROJECT EXPERIENCE

Detection of Driver Etiquette for Safe Travel

Mar 2022 – Mar 2023

- Developed a mobile application to monitor driver behavior in real-time, enhancing passenger safety by detecting drowsiness and canceled rides using voice and facial analysis.
- Tools & Techniques: NLP, Python, Firebase, ML, CNN, OpenCV, Flutter
- Publication: IEEE, ICAECA'23 at KCT
- <https://ieeexplore.ieee.org/document/10199231>

Jun 2022 – Sep 2022

Diabetes Detection

- Built a predictive model for diabetes detection using Logistic Regression. Leveraged probability-based classification to identify diabetes likelihood.
- Tools & Techniques: Python, Supervised Learning, HTML, CSS, JS

Dec 2021 – Mar 2022

Traffic Signals Image Processing

- Developed a traffic monitoring system utilizing AI and CNN to detect violations and issue fines, enhancing road safety.
- Tools & Techniques: AI, CNN, Deep Learning, ANPR

CERTIFICATIONS

- **Machine Learning with Python** – IBM, Coursera (Sep 2020)
- **Machine Learning with Big Data** – UC San Diego, Coursera (Sep 2020)
- **Hatching and Patching** – University of Michigan, Coursera (Sep 2020)

SKILLS

- **Programming Languages:** Python, Java, C++, HTML, CSS, JS, SQL, Flutter
- **Machine Learning Tools:** Supervised Learning, CNN, NLP, SHAP, LIME, PDP
- **Databases:** Firebase, MongoDB
- **Other:** Team Leadership, Fast Learner, Active Listener

ACHIEVEMENTS

- Vice President, Bikers Club – Kumaraguru College of Technology (2021-2022)
 - Head of Visual Design – College Level (2021-2022)
 - Sports Minister – Managed sports activities (2018-2019)
 - Developed a blockchain-based graphic password authentication system (Mar 2022)
 - Created a NodeJS and MongoDB system for real-time truck dispatch coordination (Jan 2023)
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