# Dinesh Kannan

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github.com/dineshkannan010

## Education

**North Carolina State University**, MS in Computer Science May 2025

- GPA: 3.72/4.0
- **Coursework:** Automated Learning and Data Analysis, Neural Networks, Cloud Computing, Design and Analysis of Algorithms

**University of Mumbai**, BE in Computer Engineering May 2022

- GPA: 9.31/10.0

## Skills

**Technical Skills:** Python, JavaScript, Deep Learning, Machine Learning, MongoDB, SQL, AWS Cloud, React, Flask

**Tools:** PyTorch, scikit-learn, Pandas, NumPy, Matplotlib, Git, Power Automate, Large Language Models, Data Structures and Algorithms

## Experience

**DC Analyst**, Deloitte USI – Mumbai, India January 2023- July 2023

- Developed a CRM system for an insurance company, leveraging Dynamics Sales and Service Instances, which streamlined client management and enhanced customer service efficiency.
- Coordinated the development of the Vegetation Management project, delivering a pre-built set of user stories, personas, and an unmanaged package. This solution, ready for clients and the market, enabled comprehensive end-to-end workflows, significantly improving project delivery time and client satisfaction.
- Responsibilities included building Dynamics App for Mobile and Desktop, Power Automate to automate the flows and use JavaScript to customize the Dynamics App.

**Web Development Intern**, VESIT – Mumbai, India May 2020- June 2020

- Built a comprehensive teacher's profile website for the faculty of VESIT using Node.js, SQL, and AWS, significantly enhancing the online accessibility and visibility of teacher profiles.
- Responsible for developing 60% of the back end including SQL integration, ensuring robust data management and 40% of the front end creating an intuitive and user-friendly interface, enhancing user experience and engagement.

## Projects

**TA Chatbot**

- Developed a Teaching Assistant Chatbot where multiple students can ask queries regarding a particular course, providing timely and accurate assistance.
- Incorporated a robust user interface using React.js to interact with large language models (LLMs) using OpenAI on the backend via Flask, ensuring seamless and intuitive user experiences.
- Integrated a vector database using MongoDB and utilized Retrieval-Augmented Generation (RAG) for searching information from course textbooks to enhance the bot's ability to provide precise and relevant information.

**Predicting Locomotion Modes from Time series Data**

- Programmed a deep learning model using PyTorch to accurately predict various locomotion modes, such as standing, walking, and climbing stairs, from time series accelerometer data.
- Utilized Python for data preprocessing and neural network implementation, ensuring efficient handling and analysis of time series data to enhance model accuracy.

**Predicting Sites at Risk of Potential Contamination with Fecal Waste**

- Led research focusing on identifying fecal contamination sources in freshwater ecosystems, using GIS, physiochemical, and nutrient data across 100+ sites, with a data size of nearly 200MB.
- Developed predictive models using Deep Neural Networks along with cross-validation to forecast fecal waste contamination, aiding in environmental conservation efforts.
- Applied advanced analytical skills including data preprocessing, visualization, extracting insights from complex datasets to enhance the accuracy and reliability of predictions.