# Nikhil Kumar Singh

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#### SUMMARY

Enthusiastic student specializing in Machine Learning, AI, and web development. Skilled in Python and web technologies, with hands-on experience in machine learning algorithms and interactive web applications. Possesses a strong foundation in mathematics and statistics, actively seeking innovative solutions to enhance AI capabilities and user experiences.

#### EDUCATION

# **B.**Tech Computer Science and Artificial Intelligence Engineering

Amrita Vishwa Vidyapeetham, Amritapuri, Kerala

#### PROJECTS

#### **Blogs: Interactive Blogging Platform**

- Developed an interactive blogging platform using React, Node is, and MongoDB to provide users with an engaging space to share their thoughts and experiences.
- Implemented authentication features with both custom password-based and Google authentication, enhancing user security and experience.
- Utilized AWS S3 for media storage, ensuring efficient and reliable management of images and files.

#### **Auto Park: Intelligent Parking System**

- Developed Auto Park, an advanced reinforcement learning-based self-parking tool, to enhance my skills in reinforcement learning.
- Implemented and fine-tuned reinforcement learning algorithms to improve problem-solving abilities and gain insights into creating efficient solutions for autonomous parking systems.

#### **PneumoVision: Innovative Pneumonia Detection Model**

- Addressed inefficiencies and inaccuracies in existing pneumonia detection methods, leading to delays in medical intervention.
- Improved the accuracy and efficiency of pneumonia detection, facilitating timely and effective medical interventions and potentially saving lives.

#### SKILLS

Languages: Java, Python, JavaScript Machine Learning: Deep Learning, Computer Vision, NLP, LLMs, MLOps Frameworks: TensorFlow, PyTorch, Scikit-learn, React, Node.js Web Development: HTML, CSS, React, Node.js Database: SQL, PostgreSQL, MongoDB Cloud Platforms: AWS, Azure, GCP Tools: Git, GitHub, Docker, Kubernetes, CI/CD Networking: TCP/IP, HTTP, REST, WebSockets Operating Systems: Linux, Windows Data Visualization: Matplotlib, Seaborn, Plotly

#### Courses

#### Developing Large Language Models, DataCamp

Certificate Link

• Gained comprehensive knowledge of LLM architecture and functionality.

## Generative AI with Large Language Models, Coursera

Certificate Link

• Explored fundamentals and advancements in Generative AI and LLMs.

### Machine Learning A- $\mathbb{Z}^{\mathbb{M}}$ : AI, Python & R + ChatGPT Bonus [2023], UdemyDec. 2022 – Apr. 2023 Certificate Link

- Completed extensive training in Machine Learning with practical applications using Python and R.
- Studied a wide range of machine learning algorithms, including supervised and unsupervised learning techniques.
- Received additional content on ChatGPT, covering its architecture, fine-tuning, and practical use cases.

Sept. 2021 – Present

Aug. 2024 – Sep. 2024

Mar. 2024 – Jun. 2024

Aug. 2022 – Oct. 2022

Feb. 2024 – Jun. 2024

Sept. 2023 – Nov. 2023