**Rajesh Patel**Applied Scientist | Machine Learning Engineer
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### **Profile**

Experienced applied scientist with 7 years in AI, machine learning, and computer vision, specializing in real-world autonomous systems. Strong background in deep learning, model optimization, and large-scale data processing. Known for leading impactful AI projects in the industry despite a non-academic research background. Proficient in designing scalable AI solutions, and well-versed in reinforcement learning and behavior prediction for autonomous vehicles.

### **Education**

**BSc in Computer Science***University of Bristol* — Bristol, UK
*2012 – 2015*

* Specialized in AI and data science during undergraduate studies.

### **Professional Experience**

**Lead Applied Scientist***AutoMind AI* — London, UK
*2020 – Present*

* Led a team developing AI models for autonomous vehicle systems, focusing on behavior prediction and decision-making using deep learning techniques.
* Designed reinforcement learning algorithms to improve vehicle performance in dynamic, real-world environments.
* Collaborated closely with engineers to integrate AI models into production systems, optimizing model deployment on edge devices for efficient in-car use.
* Worked on the end-to-end pipeline, from data collection and preprocessing to model training and testing, improving the accuracy of behavior prediction models by 25%.

**Machine Learning Engineer***DriveTech Innovations* — London, UK
*2017 – 2020*

* Built machine learning algorithms for vehicle detection, object recognition, and route planning in autonomous systems.
* Implemented convolutional neural networks (CNNs) for real-time computer vision applications, optimizing models for speed and accuracy.
* Worked on data-driven simulations to train autonomous vehicles in virtual environments, reducing the need for extensive real-world testing.
* Integrated deep learning models into existing software infrastructure, contributing to key advancements in the company’s AI capabilities.

**Data Scientist***SmartSolutions AI* — London, UK
*2015 – 2017*

* Developed predictive models using machine learning for various business applications, including customer segmentation and sales forecasting.
* Analyzed large datasets using Python and SQL, providing insights to drive decision-making processes.
* Implemented basic reinforcement learning algorithms for internal testing purposes, gaining experience with AI applications beyond traditional data science roles.

### **Skills**

* **Programming Languages**: Python, C++, SQL
* **Frameworks**: TensorFlow, PyTorch, Scikit-learn
* **AI & Machine Learning**: Deep learning, reinforcement learning, computer vision, behavioral modeling
* **Tools**: Docker, Git, Jupyter Notebooks, Linux, simulation tools
* **Soft Skills**: Leadership, team collaboration, project management, problem-solving

### **Key Projects**

* Developed and deployed a reinforcement learning-based model for vehicle behavior prediction, reducing decision-making errors in complex traffic environments by 20%.
* Spearheaded the creation of a deep learning-powered real-time object detection system that enhanced vehicle safety features in autonomous driving systems.
* Improved the efficiency of a large-scale model training pipeline, cutting training times by 30% using advanced data augmentation techniques.

### **Additional Information**

* **Languages**: English (Native), French (Conversational)
* **Hobbies**: Autonomous robotics, AI hackathons, mentoring junior engineers in machine learning