TIRUMALAPUDI RAVITEJA

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Summary:

Experienced AI Engineer specializing in autonomous vehicle technologies, with a track record in human-robot interaction and ADAS systems. Led innovative projects from ideation to implementation, leveraging AI, robotics, and ROS to drive scalable solutions. Seeking to contribute expertise in a dynamic autonomous vehicle engineering role.

Experience:

- **Robotics Project Lead | Research Institute for Artificial Intelligence of Things, Hong Kong | 02/23 – Present**
  - Led end-to-end development of a brain-controlled telerobot for individuals with severe disabilities, resulting in improved user engagement and accessibility.
  - Integrated Universal Robots for precise movements and OpenCV for intuitive human-robot interaction.
  - Implemented AI technologies for gesture recognition and voice commands, personalized for user abilities.
  - Utilized ROS for modular architecture and RealSense cameras for enhanced spatial awareness.
  - Developed Python-based user interface, incorporating user feedback for iterative refinement.

- **Developer | EM Code Technology LLC, Dubai | 05/22 – 01/23**
  - Ensured ISO 26262 ASIL-C compliance for ADAS perception system safety requirements.
  - Validated sensor fusion and hazard analysis results for safe perception algorithms.
  - Integrated SLAM algorithms for root optimization, enhancing path planning.
  - Conducted integration testing for seamless coordination among ADAS components.

- **Research Engineer | Automotive Research Center, VIT University | 09/19 – 04/22**
  - Contributed to ongoing research in autonomous e-mobility, evaluating trends and conducting simulations.
  - Provided valuable insights for system refinement under various conditions.

Education:

- PhD in Autonomous Vehicles & Robots | VIT University, Vellore | 2019
- M.Tech in Robotics | SRM University, Chennai | 2010 - 2012
- B.Tech in Mechanical Engineering | NEC, Narasaraopeta | 2006 – 2010

Key Skills:

- AI, robotics, ROS, Python, OpenCV, ISO 26262 standards
- Hardware-software integration
- Leadership and cross-functional collaboration

Certifications:

- Self-Driving Cars Specialization
- XEE100 - 011 Introduction to Internet of Things: [Stanford]
- Developing and Validating Intelligent Vehicle Control Systems, Sensors for Autonomous Vehicles, Object Visual Detection for Intelligent Vehicles

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