Raman Goyal, Ph.D. Research Scientist About me I am currently working as an Advanced Computer Scientist at the renowned Palo Alto Research Center (PARC), part of SRI International . At PARC-SRI, I lead interdisciplinary data science projects in Machine Learning, Controls & Optimization for self-driving cars and other autonomous systems. My expertise includes Reinforcement Learning, Motion Planning, and Optimal Control. Research Interest: Motion Planning and Feedback Control for Autonomous Systems Reinforcement Learning Algorithms for High-DOF Robotic Systems Optimal Sensing/Estimation and Uncertainty Quantification for Dynamical Systems Machine Learning-enhanced Digital Twin Models for Self-Driving Cars AI-driven Modeling and Simulation for System Health Diagnosis and Prognosis in Autonomous Vehicles Enhancing Privacy and Security Against Adversarial Attacks in Autonomous Systems Machine Learning-assisted Innovation in Novel Sensor Systems for Self-Driving Cars System-level Design and Optimization of Autonomous Vehicle Control Systems

Research Scientist at PARC-SRI (2020-Present)

- Led data science projects in Machine Learning, Controls & Optimization for self-driving cars and other autonomous systems
- Developed Reinforcement Learning algorithms for High-DOF robotic systems
- Designed Optimal Sensing/Estimation and Uncertainty Quantification methods for dynamical systems
- Created Machine Learning-enhanced Digital Twin models for self-driving cars
- Implemented AI-driven modeling and simulation for system health diagnosis and prognosis in autonomous vehicles

Ph.D. in Aerospace Engineering, Texas A&M University (2020)

- Conducted research on optimal control of soft robotics using data-driven reinforcement learning approaches
- Developed expertise in Motion Planning and Feedback Control for Autonomous Systems

Bachelor's in Mechanical Engineering, IIT Roorkee (2013)

- Gained experience in System-level Design and Optimization of Autonomous Vehicle Control Systems