MRC 2024 Industry Night Speaker Bios

Dr. Carrie Rebhuhn

Dr. Carrie Rebhuhn works for the MITRE Corporation as a Principal AI Engineer and is the group leader for the Behaviors & Coordination group under the Robotics & Autonomous Systems Department. She holds PhD in Robotics & Mechanical engineering with a minor in Computer Science with a dissertation topic centered around multi-robot systems. She focuses on projects that include rapid prototyping of autonomy or elements such as swarming or one-to-many control. Dr. Rebhuhn has also served as a leader in the Mobile Autonomous Systems Experimentation lab, acquiring materials and building capabilities to support rapid prototyping and multi-robot systems at MITRE.

Will Becker

Will Becker has been a member of the Maryland Robotics Center's Advisory Board since 2022, and is the current chairperson. He is a principal systems engineer for Forterra (formerly Robotic Research). His roles at Forterra have included being the head of the mechanical engineering group and the lead hardware engineer for multiple military unmanned ground vehicle projects, totaling a fleet of over 80 autonomous tactical wheeled vehicles. He has also led hardware development and controls software efforts for autonomous transit bus and commercial trucking projects, and contributed to the development of Forterra's transformable UGV/UAV "Pegasus". Prior to Forterra, he worked at General Dynamics Robotic Systems as a mechanical and systems engineer, and deployed to Afghanistan as a lead field support representative for a counter-IED robotic system. He graduated with a BS in Mechanical Engineering from the University of Maryland in 2004, and holds a Masters Degree in Mechanical Engineering from the Massachusetts Institute of Technology.

Kevin Carey

Kevin Carey holds a Master of Science in Mechanical Engineering with a specialization in Robotics from Columbia University and a Bachelor of Arts in Physics from Hamilton College. He began his career as a robotics engineer at the United States Military Academy, focusing on applying machine learning to enhance robot navigation and perception. Subsequently, Kevin joined the University of Maryland as a researcher for the ArtIAMAS project, where he contributed to the design of robotic experiments and developed infrastructure tools for multi-agent system research. Currently, Kevin is part of Booz Allen Hamilton, tackling a variety of challenges in the robotics space. His interests lie in object detection, meta-learning, and reinforcement learning.

Don Sofge

Don Sofge is a Computer Scientist and Roboticist at the Naval Research Laboratory (NRL) with 35 years of experience (22 at NRL) in Artificial Intelligence, Machine Learning, and Control Systems R&D. He leads the Distributed Autonomous Systems Section in the Navy Center for Applied Research in Artificial Intelligence (NCARAI), where he develops nature-inspired computing paradigms to challenging problems in sensing, artificial intelligence, and control of autonomous robotic systems. He has served as PI/Co-PI on dozens of federally-funded R&D efforts, and has more than 200 refereed publications (including 12 edited books) in robotics, artificial intelligence, machine learning, planning, sensing, control, and related disciplines, and one patent on virtual state estimation for semiconductor fabrication.

Dr. Brian Bittner

Dr. Bittner is a robotics research scientist at the Johns Hopkins University Applied Physics Laboratory. He has expertise in approaches for modeling, planning, and control in high degree of freedom robotics systems. At Michigan, he completed his dissertation titled "data-driven geometric mechanics" oriented towards learning and recovering navigation architectures for systems with many internal joints, including legged robots. This research involved working frequently with mathematicians, physicists, biologists, and control theorists, integrating insights and feedback across a range of disciplines. At JHU/APL, he currently leads internal research in dexterous underwater manipulation, high speed maneuvering algorithms, and legged robot codesign, in each working to make acrobatic and persistent behaviors readily accessible to systems in applied settings. As a Visiting Scientist at the Whiting School of Engineering, he supervises graduate student research in *in-situ* modeling of high degree of freedom robots. With ARL, he leads research in multi-agent map prediction for high speed reconnaissance, synthesizing complex sets of observations into foresight for agent delegation.