

Exponent®
Engineering & Scientific Consulting

Michael Maass, Ph.D.

Senior Manager | Computer, Data & Security Sciences
Seattle
+1-425-519-8760 | mmaass@exponent.com

Professional Profile

Dr. Maass is a pioneer in product cybersecurity and regulatory compliance, specializing in the security of safety-critical, AI-driven systems. With almost two decade's worth of professional cybersecurity experience, he has a distinguished track record of bridging the gap between complex technical architecture and executive business strategy.

Throughout his career, Dr. Maass has implemented mission-critical security mechanisms — including secure identity, key management, secure communications, and secure flashing — across a variety of electronic control units, such as LiDAR, cameras, and high-performance computers. Dr. Maass' work in session key generation and device provisioning has redefined how autonomous platforms manage trust. Dr. Maass holds a Ph.D. and M.S. in Software Engineering from Carnegie Mellon University and is a primary contributor to industry publications like Safety First for Automated Driving.

Academic Credentials & Professional Honors

Ph.D., Software Engineering, Carnegie Mellon University, 2016

M.S., Software Engineering, Carnegie Mellon University, 2013

B.S., Electrical Engineering, Washington State University, 2010

Prior Experience

Senior Director / Principal Cybersecurity Systems Engineer, Torc Robotics, July 2024 – December 2025

Director of Cybersecurity, Motional, April 2022 – May 2024

Cybersecurity Lead, Principal Engineer, Motional and Aptiv's Motional Predecessor, November 2017 – April 2022

Lead, Usable IoT Security, Bezirk - A Bosch Startup, April 2016 – November 2017

Security Engineer, The Boeing Company, May 2008 - March 2016

Patents

Selected Patents

Session key generation for autonomous vehicle operation. 11,792,644 · Issued Oct 17, 2023

Managing power of electronic devices on a vehicle. 11,535,112 · Issued Dec 27, 2022

Device Provisioning and Authentication. 11,246,032 · Issued Feb 8, 2022

Publications

Selected Refereed Publications

A systematic analysis of the science of sandboxing. PeerJ · Jan 1, 2016

Evaluating the Flexibility of the Java Sandbox. Annual Computer Security Applications Conference · Dec 1, 2015

How does your password measure up? The effect of strength meters on password creation. USENIX Security Symposium. Aug 1, 2012