

# Machine Learning in Connected Cars



## Abstract:

As cars are now being connected to the Internet and the car platforms become like computers with hardware and software, machine learning and AI become paramount for connected and autonomous driving as well as predictive vehicle maintenance. Data mining plays an important part in the evolutionary development of these systems. Connected and self-driving vehicles generate amazing amounts of data, including building internal user profiles for building predictive models of preferences. Machine learning can help connected and autonomous vehicles find optimal patterns to create safe, useful, and enjoyable passenger experiences. In this talk, I will explain three applications for applying machine learning in journey management, predictive vehicle maintenance, and personal preferences.

## Bio:

Dr. Alvin Chin is Chair of IEEE VTS Chicago, but his full-time job is AI and Emerging Technology Researcher at BMW Technology Corporation where his research involves exploring AI and emerging technologies for potential use cases in production at BMW. Previously, he was Senior Machine Learning Researcher at BMW Technology Corporation in Chicago where he worked on big data and machine learning for improving driving behavior. Prior to BMW, he was a Senior Researcher at Microsoft and Nokia in Beijing working on big data and analytics for browsing behavior in Xpress Browser, and Senior Researcher at Nokia Research Center working on mobile social networking in particular proximity social networks for inferring social activity, collaboration and recommendation in real physical environments. Dr. Chin has authored more than 30 publications and 15 patents including those pending. He has a Bachelors' and Masters' degrees in Computer Engineering from the University of Waterloo and a Ph.D. in Computer Science from the University of Toronto. Dr. Chin is a member of various program committees such as ACM KDD, ACM Hypertext, IEEE CPSCOM, ACM Ubicomp, ACM CSCW, and IEEE VTC. He is an ACM Senior Member and IEEE Senior Member. Dr. Chin is also active in the Chicago community, as Chair of ACM Chicago, Chair of the IEEE VTS Chicago Chapter, Chair of the IEEE Computer Society Chicago Chapter, and Treasurer of IEEE Chicago. He was the Publicity Co-Chair for IEEE Vehicular Technology Conference-Fall 2020 and is the Secretary of the IEEE VTS/Automated Vehicles Standards Committee. Alvin can be reached at [alvin.chin@ieee.org](mailto:alvin.chin@ieee.org) and his website is <http://www.alvinychin.com>.