

Self-Driving Cars — an AI-Robotics Challenge

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In recent years, all major automotive companies have launched initiatives towards cars that assist people in making driving decisions. The ultimate goal of all these efforts are cars that can drive themselves. The benefit of such a technology could be enormous. At present, some 42,000 people die every year in traffic accidents in the U.S., mostly because of human error. Self-driving cars could make people safer and more productive.

Self-driving cars is a true AI challenge. To endow cars with the ability to make decisions on behalf of their drivers, they have to sense, perceive, and act. Recent work in this field has extensively built on probabilistic representations and machine learning methods. The speaker will report on past work on the DARPA Grand Challenge, and discuss ongoing work on the Urban Challenge, DARPA's follow-up program on self-driving cars.