

# Brian Davis

Associate Director, HumanFIRST Laboratory  
Department of Mechanical Engineering, University of Minnesota  
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## Education

M.S., Mechanical Engineering	University of Minnesota – Twin Cities	2012
Bachelor of Mechanical Engineering	University of Minnesota – Twin Cities	2009

## Professional Experience

**Associate Director**, HumanFIRST Laboratory  
Department of Mechanical Engineering, University of Minnesota, 2023-present

**Vehicle Manager**, MnCAV Ecosystem  
Center for Transportation Studies, University of Minnesota, 2021-present

**Research Fellow**, Mobility Technology Laboratory (formerly Intelligent Vehicles Laboratory)  
Department of Mechanical Engineering, University of Minnesota, 2012-2023

**Graduate Research Assistant**, Intelligent Vehicles Laboratory  
Department of Mechanical Engineering, University of Minnesota, 2009-2012

**Graduate Teaching Assistant**, ME 5286: Robotics  
Department of Mechanical Engineering, University of Minnesota, 2010-2012

**Undergraduate Research Assistant**, Center for Compact & Efficient Fluid Power  
Department of Mechanical Engineering, University of Minnesota, 2008

## Selected Publications

Davis, B., Schwieters, K., Morris, N.L., & Donath, M. (2023, June). *Deployment of a Snowplow Driver-Assist System* (MnDOT 2023-27). Minnesota Department of Transportation.  
<https://hdl.handle.net/11299/256010>

Liao, C.-F. & Davis, B. (2020, October). *Deploy and Test a Smartphone-Based Accessible Traffic Information System for the Visually Impaired* (MnDOT 2020-28). Minnesota Department of Transportation. <https://hdl.handle.net/11299/218026>

Achtemeier, J. D., Craig, C. M., Morris, N. L., Davis, B. (2020). Superior side sound localisation performance in a full-chassis driving simulator. *Ergonomics*, 63(5), 538-547,  
<https://doi.org/10.1080/00140139.2020.1740334>

- Davis, B.** (2019, July). *Teen Driver Support System Technology Transfer* (CTS 19-24). Roadway Safety Institute, Center for Transportation Studies, University of Minnesota. <https://hdl.handle.net/11299/205136>
- Davis, B.** & Johnson, R. (2019, July). *Development of a Workshop on Automated Vehicle Technologies* (CTS 19-23). Roadway Safety Institute, Center for Transportation Studies, University of Minnesota. <https://hdl.handle.net/11299/208694>
- Davis, B.**, Morris, N., Achtemeier, J., & Easterlund, P. (2019, June). *Improvement of Driving Simulator Eye Tracking Software* (CTS 19-14). Roadway Safety Institute, Center for Transportation Studies, University of Minnesota. <https://hdl.handle.net/11299/203634>
- Liao, C.-F. Morris, N. L., Achtemeier, J., Alexander, L., **Davis, B.**, Donath, M., & Parikh, G. (2018, August). *Development of Driver Assistance Systems to Support Snowplow Operations* (CTS 18-14). Center for Transportation Studies, University of Minnesota. <https://hdl.handle.net/11299/200641>
- Jackson, J., **Davis, B.**, & Gebre-Egziabher, D. (2018). A performance assessment of low-cost RTK GNSS receivers. *2018 IEEE/ION Position, Location and Navigation Symposium (PLANS)*, 642-649, <https://doi.org/10.1109/PLANS.2018.8373438>
- Davis, B.**, Morris, N. L., Achtemeier, J., & Patzer, B. (2018, March). *In-Vehicle Dynamic Curve-Speed Warnings at High-Risk Rural Curves* (MnDOT 2018-22). Minnesota Department of Transportation. <https://hdl.handle.net/11299/197461>
- Jackson, J., Saborio, R., Ghazanfar, S. A., Gebre-Egziabher, & D., **Davis, B.** (2018, February). *Evaluation of Low-Cost, Centimeter-Level Accuracy OEM GNSS Receivers* (MnDOT 2018-10). Minnesota Department of Transportation. <https://hdl.handle.net/11299/197453>
- Craig, C. M., Morris, N. L., Libby, D., & **Davis, B.** (2018, February). *Work Zone Intrusion Report Interface Design* (MnDOT 2019-09). Minnesota Department of Transportation. <https://hdl.handle.net/11299/197459>
- Davis, B.** & Donath, M. (2016). Development of a Sensor Platform for High-Accuracy Mapping of Roadway Lane Markings. *Transportation Research Record: Journal of the Transportation Research Board*, 2551(1), 45-51, <https://doi.org/10.3141/2551-06>
- Davis, B.** & Donath, M. (2015, April). *Development of a Sensor Platform for Roadway Mapping: Part B – Mapping the Road Fog Lines* (MnDOT 2015-11). Minnesota Department of Transportation. <https://hdl.handle.net/11299/172721>
- Davis, B.** & Donath, M. (2014, June). *Development of a Sensor Platform for Roadway Mapping: Part A – Road Centerline and Asset Management* (CTS 14-09). Center for Transportation Studies, University of Minnesota. <https://hdl.handle.net/11299/171229>