Home **About** **Calendar**▾ **Courses**▾ *Research Teams*▾ **People**▾ **Resources**▾ **Summer Photos**

Traffic Incident Management Enabled by Large-data Innovations

Faculty Members: Stephen Gilbert (IMSE; gilbert@iastate.edu) & Anuj Sharma (CCEE; anujs@iastate.edu)

Mentor: Jamiahus Walton (jwalton@iastate.edu) and Pranamesh Chakraborty (pranames@iastate.edu)

REU Interns: Ahmed Abdirahman, Ilan Buzzetti, and Leilanie Morales Rivera

Iowa State is partnering with the Iowa Department of Transportation (DOT) to use emerging data analytics techniques to reduce the number of road incidents through proactive traffic control and to minimize the impact of individual incidents that do occur through early detection, response, and traffic management and control. This NSF-funded 3-year project will develop TIMELI, an advanced software system that will 1) integrate multiple software tools and data feeds such as road-based radar sensors, live video, Waze data, and weather sensors to better predict traffic incidents, and 2) create a better software system for Traffic Incident Managers (TIMs) to manage incidents. When a truck turns over on the road, the TIM is the person who coordinates with the police, firefighters, ambulances, and highway helpers to get people to safety and traffic re-routed.

This summer, REU interns will help with goal #2: evaluate a prototype software system that allows TIMs' to work more efficiently. Interns will have the opportunity to assist with data collection and analyses. They will study
how a prototype influences the TIM's work. This data analyses will seek to answer questions similar to the following:

- Does the prototype improve the overall performance of TIMs?
- Does the prototype reduce the steps and time normally needed to complete frequent tasks?
- Does the prototype usability satisfy the minimal requirements for TIMs?

Blogs

- Ahmed Abdirahman
- Ilan Buzzetti
- Victoria Green
- AJ Hanus
- Aidan Kidder-Wolff
- Gabriel Kulp
- Leilanie Morales Rivera
- Teandre Roberts
- Inshira Seshie
- Stephan Terry
- Kira Thomas
- Mary Truong

Courses

- C++
- Craft of Research
- Deeper Dives
- Intro to HCI
- Luncheon Lectures
- Maya
- Solidworks
- Unity

Recent Posts

- Sadness Abounds
- August 3rd (Fin)
- Time Crunch
- Val Nehls' Hot Wheels
- August 2nd (Penultimate)
- Welp
- Short Post
- Week 10: Finishing Up
- Teandre's Post: Blog Catching Up
- Weekend 9: A Quick Family Visit
- Poster Arrived
- Last Monday
- OUR POSTER!
- July 27th – 30th (Praxis)
- The benefit of doing grad school

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