EDUCATE BROADLY
- Grad Certificate
- Undergrad & Grad Courses
- Advising & Student Org Support
- Treks (Ann Arbor, Detroit, GR)

2,400+ students enrolled in AY18 (up 104% over the past 3 years)
1,600+ student participants in co-curricular programs over the past 3 years
#4 undergrad education program by The Princeton Review

FELLOWSHIPS
- NSF I-Corps
- MTRAC (Innovation Hub for Advanced Transportation)
- Monroe Brown Seed Fund

TECH ACCELERATION
1,930+ participants nationwide over the past 3 years
700+ projects actively engaged with the CFE over the past 3 years
$36M+ in follow-on funding over the past 3 years
Talent is an AV industry driver

“Today, less than 1% of college graduates with computer engineering, computer science, or software engineering degrees enter the auto industry, according to the US Bureau of Labor Statistics. **About six times as many will soon be needed.**”

BCG analysis, 2019

“...the need for high-tech talent will exceed what current development pipelines can produce.”

Council on Future Mobility and Electrification 2021 Report
Cruise Automation

2016 – 40 employees (acq. By GM)
2022 - >2,000 employees
The need for cross-functional talent pipelines

- AI
- Perception
- Physics
- Data
- Full Stack
- Robotics
- ML
- Systems Thinking
A Company-in-Residence program for early-stage advanced mobility companies in the connected and autonomous vehicle (CAV) industry through the work of elite and technically-skilled students.
24 UG and Masters Students (CS, EE, ME, etc.)

Winter Semester
Independent Study – Project Management
CAV Sponsored Company Projects
3 Credit Hours

Fall Semester
Independent Study – Product Management
CAV Sponsored Company Projects
3 Credit Hours

Yearlong Technical Projects with Startups

Winter and Fall Startup Trek Immersion Experience

Due Diligence
Demonstrations
Deployments
New careers

6 Seed – Series B startups

6 Seed – Series B startups
A successful experiment

2016  CFE launches TechLab at Mcity in partnership with Mcity, CoE, and UMOR

...  

2022  171 students (undergrad/master’s) and 21 startups have participated  
Since 2019, the program has featured 24 students and 6 startups per cohort  
More than 60 guest speakers joined class representing nearly every facet of the CAV spaces
Exceptional Student Outcomes

>70 student participants have completed the program and graduated from U-M (5 years)

14 (20%) are currently full-time in the CAV industry

- Cruise Automation, Toyota, Ford, 6D.ai, May Mobility, Mercedes-Benz R&D, Nuro, Tesla, NIO

13 (19%) are currently full-time in CAV-adjacent industries

- Microsoft, Facebook, Foxconn, GE Aviation, Bear Robotics, Neocis, Striim, Amazon, Oracle
Melinda Kothbauer
‘18, CS - Robotics Engineer at May Mobility

Member of the Zendrive team creating a Driver Score for Fuel Consumption from smartphone data. First female Robotics Engineer at May Mobility.
Mohan Kothari
‘18, ME - Data Scientist at Cruise

Chris Shih
‘19 EE - Software Engineer at Cruise

Members of the first cohort on the Zendrive team determining hard-brake signals from multiple cell phone data.
Rini Gupta
‘18 EE – Software Engineer at NIO

Member of the Polysync team developing connection between open source AV stack and proprietary software.
Ian Rios-Sialer
‘17 ME – Software Engineer at Niantic

Member of the Civil Maps team working on developing 3D mapping of Mcity test track. Led to Computer Vision Engineer role at startup 6D.ai which was acquired by Niantic in 2020. Ian is now an AR Software Engineer at Niantic.
Rourke Pattullo
‘20 EE – Strategy and Operations
AVs at Ford

Member of the Tome team, working on developing smart infrastructure for vehicle to bicycle communications. Now working as AV Project Manager at Ford.
Helping Power Startup Growth

At least 9 companies that have participated in the program have raised funding during the program, totaling $334.4M
Helping Power Startup Growth

Righthook acquired due to work completed in program ($5M to Spectris)
Helping Power Startup Growth

DeepMap acquired by NVIDIA while participating in the program (Est. $450M exit)
Helping Power Startup Growth

Carmera/Toyota story - student driven code directly into production software leading to acquisition by Toyota’s Woven Project.
A Key Component of U-M and State CAV Ecosystem
What’s Next

Proven model
Scale up
Industry partnerships
Replication with other themes
Thank You

cfe.umich.edu/techlab-mcity

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