



Ph.D. Position Openings in Perception, AI, and Autonomy Lab @ UTRGV Fall 2026 & Spring 2027



Dr. Lei Cheng

Website: leicheng5.github.io

About the PI

Dr. Lei Cheng will join the Department of Electrical and Computer Engineering at The University of Texas Rio Grande Valley as a tenure-track assistant professor in Fall 2026.

He is currently a Research Faculty at the University of Maryland, College Park (*Supervisor: Prof. Xianfeng Yang*). He received his Ph.D. from the University of Arizona (*Advisor: Prof. Siyang Cao*) in 2025, his M.E. from Peking University in 2019, and his B.S. from Northeast Petroleum University in 2016. His research focuses on deep perception, sensor fusion, autonomous systems, intelligent transportation, robotics, and multimodal AI.

The PAIA Lab, to be established by Dr. Cheng at UTRGV, aims to develop perception-centered autonomous intelligence that connects sensing, understanding, and decision making for real-world autonomous systems.

About the University

UTRGV is a public research university and a member of The University of Texas System. Located near SpaceX and major Texas cities such as San Antonio, Austin, and Houston, UTRGV hosts research platforms supported by NSF, NIH, and the U.S. DOT, and is home to distinguished scholars, including members of the National Academy of Engineering and the National Academy of Inventors. Its College of Engineering and Computer Science has received tens of millions of dollars in research funding in recent years.

UTRGV is ranked No. 213 among national universities and No. 118 among public universities in the 2026 U.S. News rankings, No. 58 in the 2025 Washington Monthly National University Rankings, No. 745 in the 2023 U.S. News Best Global Universities rankings.

Ph.D. Position Description

The Perception, AI, and Autonomy Lab (PAIA Lab) at UTRGV is seeking **1–2 fully funded Ph.D. students** to join the lab in Fall 2026 or Spring 2027. The ideal candidates are expected to have strong interests in artificial intelligence, autonomous systems, robotics, computer vision, sensor fusion, and intelligent transportation.

Students will have opportunities to work on research topics including, but not limited to:

- Multimodal sensing, data processing, and sensor fusion
- Deep learning-based perception for detection, tracking, and scene understanding
- Autonomous driving and intelligent transportation systems
- Robotics, embodied intelligence, and the physical AI
- Multimodal foundation models, including VLMs and VLAs
- Reliable, trustworthy, and safety-aware AI for autonomous systems
- Application-driven AI for real-world sensing and autonomy

Sensor Fusion

Deep Perception

Robotics

Multimodal AI

Applied AI

Intelligent Autonomous Systems

Qualifications

- A bachelor's or master's degree in Electrical Engineering, Computer Engineering, Computer Science, Robotics, Mechanical Engineering, Transportation Engineering, or a closely related field.
- Background in deep learning, computer vision, sensors, autonomous vehicles, robotics, control, embedded AI platforms, or data analytics is preferred, but not mandatory.
- Programming experience in Python, C/C++, or related languages is a plus but not required.
- Strong motivation to conduct high-quality research, publish papers, build real-world systems, and work in a collaborative research environment.

How to Apply

Prospective Ph.D. students, as well as students interested in M.S. research opportunities, are encouraged to email Dr. Lei Cheng at leicheng@umd.edu with the following subject line:

Ph.D./M.S. Application – Fall 2026/Spring 2027

Please include the following materials:

- CV or resume
- Unofficial transcripts
- A brief statement of research interests in your email
- TOEFL/IELTS and GRE information, if applicable

