

# Wugang Meng

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## EDUCATION

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- **Hong Kong University of Electronic and Computer Engineering**  
*Doctor of Philosophy in Computer Science* Aug. 2023 - Now
- **Georgia Institute of Technology**  
*Master of Science in Computer Science; GPA: 3.9/4.0* Aug. 2021 - Apr. 2023  
*Courses: Artificial Intelligence, Robotics: AI Techniques, Operating Systems, Machine Learning, Probabilistic Models*
- **Harbin Institute of Technology**  
*Bachelor of Engineering in Electronic and Information Engineering; GPA: 3.33/4.0* Sep. 2015 - July 2019  
*Courses: Signals and Systems, Wireless Localization, Advantage Electronic Technology, Deep Learning Technology*

## PROGRAMMING SKILLS

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- **Languages:** Python, C/C++, Julia, Bash Shell Script
- **Tools:** ROS, Matlab, Qt, STM32, Pytorch, Caffe

## PROJECTS

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- **PPO of launch and landing strategy for FWAD on sea surface** HKUST  
*Perception Group* Jan. 2023 - Now
  - **Wing Design:** Implemented a genetic algorithm on the wind design and develop reduced-order models to overcome the low-efficiency issue of GA.
- **Human Motion Behavior Detector** Georgia Institute of Technology  
*Assistant engineer, Associate with Dr. Zhaolin Zhang* Sep. 2021 - Mar. 2022
  - **Radar Database:** Measured seven types of postures of three men and two women with body mass index (BMI) between 18 and 29 using a single-transmission, single-receiver millimeter-wave radar array and built a database of 2800 labeled samples.
  - **ReLU-ELM:** Built ReLU Extreme Learning Machine by Pytorch, which can classify the time-frequency spectrum for different human behavior.
- **Intelligent Perception System** Harbin Institute of Technology  
*Assistant engineer, Supervised by Prof. Yinan Zhao* Dec. 2018 - Apr. 2021
  - **High-speed mm-wave Radar Data Interface:** Designed a driver based on Linux kernel for millimeter-wave radar that transports multi-channel high-speed Intermediate Frequency signals from DSP to 3-D PointCloud processing program.
  - **Graph-SLAM Algor based on mm-wave Radar Data:** Demonstrated the influence of RF signal parameters on the information matrix in SLAM Algorithm, and implement it in Online Graph-SLAM.
  - **MCL Algorithm based on mm-wave Radar Data:** Using the environment velocity measured by radar, implemented a fast converging Monte Carlo Localization Algorithm by Particle Filter with velocity discrimination.

## PUBLICATIONS

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- **Application of Multi-angle Millimeter-wave Radar Detection in Human Motion Behavior and Micro-action Recognition:** MEASUREMENT SCIENCE and TECHNOLOGY.
- **Human Behavior Recognition Method Based on CEEMD-ES Radar Selection:** The 2021 CIE International Conference on Radar December, 15-19th, 2021, Haikou, China

## EXPERIENCE

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- **Georgia Institute of Technology (Shenzhen Campus)** Shenzhen, Guangdong  
*Teaching Assistant* Aug. 2021 - Now
  - **Fall21 CS6601 Artificial Intelligence:** On-campus course for Shenzhen students. Involved in creating assignment solution demos and exam materials and conducting recitation sessions. The online version on Udacity and Online Master had more than 1000 students enrolled.
- **Harbin Institute of Technology (Weihai Campus)** Weihai, Shandong  
*Research Assistant* Jul. 2019 - May. 2021
  - **Intelligent Perception System:** Intelligent Perception System is a part of National High-tech R&D Program. Worked on robot platform construction and wireless localization and navigation algorithm.
  - **RoboMaster:** The RoboMaster University Series (RMU) is a platform for robotic competitions and academic exchange founded by Da-Jiang Innovations (DJI) and specially designed for global technology enthusiasts. Instructed undergraduates to build intelligent robot algorithms for competition.