

MINGZE PAN

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EDUCATION

Stevens Institute of Technology System Engineering Ph.D	<i>Sep 2023 - Present</i> <i>Hoboken, NJ</i>
California State University, Fullerton Computer Engineering M.S.	<i>Aug 2020 - Dec 2022</i> <i>Fullerton, CA</i>
California State University, Fullerton (Exchange Program) Electronic Engineering	<i>Aug 2019 - May 2020</i> <i>Fullerton, CA</i>
Tianjin Normal University Communication Engineering B.S.	<i>Sep 2016 - Jun 2019</i> <i>Tianjin</i>

PUBLICATIONS

Mingze Pan, Sudhanshu Arya, Ying Wang: **Domain Knowledge Powered Machine Learning for the Classification of LOS/NLOS Signals for Dedicated-Spectrum SAGIN Networks**, DySPAN '24, May , 2024

Mingze Pan, Ying Wang: **Bayesian Cooperative LOS/NLOS Classification with Domain Insights and Model Refinement for UAV Communication**, IEEE Open Journal of Vehicular Technology, submitted

Mingshuo Liu, Kevin Han, Shiyi Luo, Mingze Pan, Mousam Hossain, Bo Yuan, Ronald F. DeMara, Yu Bai: **An Efficient Video Prediction Recurrent Network using Focal Loss and Decomposed Tensor Train for Imbalance Dataset**, GLSVLSI '21, June , 2021

AWARDS

IEEE Student Engineering Team Challenge 2021 Project: Self-Navigating Drone	<i>Second Place</i> <i>Aug 2021</i>
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PROFESSIONAL EXPERIENCE

Stevens Institute of Technology Research Assistant Advisor: Dr. Ying Wang	School of Systems and Enterprises <i>Sep 2023 - Present</i>
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- **Project1:** Developed innovative machine learning models integrating domain knowledge and Bayesian methods for precise LOS/NLOS
- **Project2:** Utilized spectral data analysis for signal characterization, enhancing classification accuracy under diverse environmental conditions
- **Project3:** Implemented a Bayesian network model for real-time detection of vulnerabilities and intrusions within physical communication channels, enhancing network security

California State University, Fullerton Graduate Student Research Assistant	Computer Engineering Department <i>Jan 2021 - Nov 2021</i>
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- **Project1:** Developed a pre-processing module into YOLOv5 to optimize the data set for object detection, which reduced calculation waste
- **Project2:** Implemented edge smart computing with GPS system for drone to autonomously complete extensive analysis of GPS coordinates and adaptive pathfinding

Tianjin Normal University

National College Innovation and Entrepreneurship Project

Group Leader

Designed an Anti-blocking smoke alarm system for student dormitories in the university.

Communication Engineering Department

Dec 2017 - Jun 2019

WORK EXPERIENCE

Stevens Institute of Technology	School of Systems and Enterprises
Research Assistant	<i>Sep 2023 - Present</i>
California State University, Fullerton	Computer Engineering Department
Instructional Student Assistant	<i>Sep 2021 - Nov 2021</i>

TECHNICAL AND LANGUAGE SKILLS

Programming Language	Python, MATLAB, C, C++, Verilog
Software	Visual Studio, HSPICE, Latex, MATLAB, Xilinx Vivado
Operating System	Linux
Data Analysis	Python - Numpy, Pandas, Scikit-Learn, Matplotlib
Deep Learning	Python - Keras, TensorFlow, Pytorch
Language	English, Chinese