MINGZE PAN

657-525-8800 | mpan6@stevens.edu

EDUCATION

Stevens Institute of Technology — *Sep 2023 - Present*
System Engineering Ph.D GPA:3.9/4.0 — *Hoboken, NJ*

California State University, Fullerton — *Aug 2020 - Dec 2022*
Computer Engineering M.S. GPA:3.5/4.0 — *Fullerton, CA*

California State University, Fullerton (Exchange Program) — *Aug 2019 - May 2020*
Electronic Engineering GPA:3.4/4.0 — *Fullerton, CA*

Tianjin Normal University — *Sep 2016 - Jun 2019*
Communication Engineering B.S. — *Tianjin*

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 — Second Place
Project: Self-Navigating Drone — *Aug 2021*

PROFESSIONAL EXPERIENCE

Stevens Institute of Technology — School of Systems and Enterprises
Research Assistant — *Sep 2023 - now*
Advisor: Dr. Ying Wang

- **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 — Computer Engineering Department
Graduate Student Research Assistant — *Jan 2021 - Nov 2021*

- **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 — Communication Engineering Department

National College Innovation and Entrepreneurship Project *Dec 2017 - Jun 2019*
Group Leader

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

WORK EXPERIENCE

Stevens Institute of Technology — School of Systems and Enterprises

Research Assistant *Sep 2023 - Present*

California State University, Fullerton — Computer Engineering Department

Instructional Student Assistant *Sep 2021 - Nov 2021*

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