

## Educational Background

University of Electronic Science and Technology of China

Sept. 2022 - Jun. 2026 (expected)

B.Eng in Communication Engineering

- Rank – 3/168 (top 1.2%)    GPA – 3.92/4
- Major courses: Probability and Statistics (99), Stochastic Signal Analysis (96), Signals and Systems (95), Artificial Intelligence (95), Calculus I (94), Linear Algebra (90)
- Language: IELTS: 6.5    CET-4: 602    CET-6: 602

## Publications

- [C1] **Y. Wang**, W. Mei, X. Wei, B. Ning, and Z. Chen, “Antenna Position Optimization for Movable Antenna-Empowered Near-Field Sensing,” accepted by *ICC Workshop*, 2025, arXiv:2502.03169. [\[PDF\]](#)
- [J1] **Y. Wang**, W. Mei, X. Wei, B. Ning, and Z. Chen, “Movable Antenna Empowered Near-Field Target Sensing via Antenna Position Optimization,” to be submitted to *IEEE Transactions on Wireless Communications*.

## Honors and Awards

- 2024 National Scholarship (Top 1.5%) for Undergraduates
- 2023 Luzhou Laojiao Corporate Scholarship (Top 2%) for Undergraduates
- 2022&2023 UESTC Outstanding Student Scholarship
- 2024 Mathematical Contest in Modeling (MCM) Honorable Mention
- 2024 National English Competition for College Students (NECCS) National Third Prize

## Research Experiences

Multi-spectral and Panchromatic Image Fusion and Image Denoising

Sept. 2023 - Dec. 2023

- Studied a multi-spectral and panchromatic satellite image fusion algorithm based on PanNet CNN, which mainly adopts a four-layer deep residual network to learn high-frequency details of the images.
- Reproduced deep residual network-based frameworks similar to PanNet, such as DiCNN and FusionNet.
- Designed a deep residual network-based CNN, achieving high-quality image denoising such as rain streak removal.

Partitioning-Based XL-MIMO Assisted Near-Field User Localization

Mar. 2024 - Jun. 2024

- Learned a low-complexity partitioning-based XL-MIMO assisted near-field user localization algorithm, which proposes a Bayesian inference framework for handling maximum a posteriori (MAP) estimation problem of the user location without closed-form solutions, incorporating algorithms including message passing, variational Bayesian line spectral estimation (Valse), Gauss-Newton interpolation and block coordinate ascent (BCA).

Movable Antenna-Empowered Near-Field Sensing

Sept. 2024 - Present

- Almost independently conducted comprehensive research for the ICC conference paper and journal.
- Discovered and rigorously proved that movable antenna (MA) technology can significantly enhance near-field sensing performance compared to conventional fixed-position antenna (FPA) arrays. The core innovation lies in minimizing the Cramér-Rao Bounds (CRBs) of estimation mean square errors (MSEs) of target parameters by optimizing antenna positions. Moreover, it was revealed that compared to far-field beamsteering, near-field beamfocusing enabled the sensing system to more accurately locate the target by exploiting information of the additional distance domain.
- Published a **first-authored** paper which is accepted by *ICC Workshop 2025* with 4 citations, and currently finished the journal version which is to be submitted to *IEEE Transactions on Wireless Communications* (see Section “Publications”).

## Skills and Services

- Technical skills:** Experienced in **Python** and **MATLAB**. Available for **C** and **Verilog**.
- Academic service:** **Peer Reviewer**, 2025 IEEE ICC Workshop, Montreal, Canada.
- Social services:** Class academic officer; college peer counselor; core organizer of Green Volunteers Association.