

Zian Chen (Adam Fitz)

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Education

Northwestern Polytechnical University (NPU)

Sep. 2023 – Mar. 2026(Expected)

- *M.Eng. Information and Communication Engineering, Weighted Average (Compulsory Courses): 93.12/100, RANK: 1/62*
- **National Scholarship (Top 2%)** | Academic First Class Scholarship (Twice) | First Class Scholarship
- Wireless Communication and Navigation Laboratory (WiCAN LAB) Third Class Scholarship | Aerospace Electromagnetic Cognition and Utilization Institution (AECU INS) Second Class Scholarship
- Outstanding Graduate Student
- **Main Courses:** Matrix Theory(100), Mathematical Statistics(97), Big Data Analysis and Mining(95), Information Theory and Coding(95), Modern Communication Theory(95), Computer Communication Networks(94)
- **Research Interests:** Machine Learning(ML), Integrated Sensing and Communication(ISAC), Unmanned Aerial Vehicle(UAV), Reconfigurable Intelligent Surface(RIS), Physical Layer Security(PLS)

Northwestern Polytechnical University (NPU)

Sep. 2019 – Jun. 2023

- *B.Eng. Electronics and Information Engineering (ETP) GPA: 3.7/4.1 RANK: 2/7*
- **National Encouragement Scholarship (Top 3%)** | Academic Second Class Scholarship
- Outstanding Undergraduate Student | Excellent Speaker, "We Talk" Workshop
- Academic Excellence Outstanding Individual (Twice) | Self-striving & Persevering Outstanding Individual | Diligent & Erudite Outstanding Individual
- **Main Courses:** Calculus I/II/III(100), Computing Method(100), Complex Function and Integral Transformation(100), Microwave and Radio Circuits(97), Fundamentals of Analog Electronics(97), Linear algebra(95)

Paperwork and Patents

[C₁] **Zian Chen**, Qian Xu, et al. ISAC-OTFS Enabled Secure Transmission Against Co-Existing Internal and External Eavesdroppers in Vehicular Networks [C], 2025 IEEE 8th International Conference on Electronic Information and Communication Technology (ICEICT 2025). (*EI, Accepted*)

[J₁] Qian Xu, **Zian Chen**, et al. Sensing-Assisted OTFS Communications in Hostile Jamming Environment [J], IEEE Wireless Communications Letters. (*SCI Q1, Under review*)

[P₁] Qian Xu, **Zian Chen**, et al. A Highly Reliable and Secure Transmission Method Based on OTFS[P], Invention Patent in China. (Patent No.CN119276674A)

[P₂] Xin Yang, **Zian Chen**, et al. An Anti-Jamming Implementation Approach for Integrated Sensing and Communication Waveform[P], Invention Patent in China. (Patent No.2025107315462)

[P₃] Qian Xu, **Zian Chen**, et al. A Secure Transmission Scheme Based on Self-Interference Cancellation Mechanism[P], Invention Patent in China. (Patent No.202418000868.6)

[P₄] Qian Xu, **Zian Chen**, et al. A Secure Multiple Access Method Based on Multi-Carrier Modulation[P], Invention Patent in China. (Patent No.202418000872.2)

[P₅] Qian Xu, **Zian Chen**, et al. A Spectrum Efficient Secure Transmission Scheme Based on Orthogonal Time Frequency Space Modulation[P], Invention Patent in China. (Submitted)

[P₆] Qian Xu, **Zian Chen**, et al. A Secure Transmission Approach Empowered by Multi-Dimensional Sensing[P], Invention Patent in China. (Submitted)

Awards (Selected)

- China Graduate Contest on Smart-city Technology and Creative Design Competition Oct. 2024
National Third Prize (*Team Leader*)
- "Challenge Cup" National College Student Extracurricular Academic Science and Technology Works Competition May. 2025

Shaanxi Province **Grand Prize**

- "GigaDevice Innovation Cup" National Graduate Student Electronic Design Competition Northwest China Regional **First Prize** (Commercial Track) Jul. 2023
- "GigaDevice Innovation Cup" National Graduate Student Electronic Design Competition Northwest China Regional Second Prize (Technical Track) Aug. 2024
- "Aviation, Aerospace & Navigation Cup" Innovation Competition (A Class) University-Level **First Prize (Team Leader)** Mar. 2024
- Youth League Commendation Series University-Level **Top10** "Flag Youth League Branch" (**First Place, Team Leader**) Apr. 2025
- "Youth in a Prosperous Era, Striving in Prime Time" Annual Excellence Selection Series University-Level **Top10** "Model Class" (**¥10,000 Funding Awarded, Team Leader**) Oct. 2024

Projects (Selected)

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| Multi-Dimensional Joint Secure Transmission for UAV-Ground Communications | Apr. 2022 – Present |
| • National Natural Science Foundation (No.62201462) | (Student Leader) |
| • Key words: <i>Orthogonal Time Frequency Space; Beamforming and Precoding Design</i> | |
| Resource Optimization Theory for UAV-Aided Multi-User Secure Communications | Mar. 2024 – Present |
| • Young Talent Fund of Association for Science and Technology (No.20240148) | (Student Leader) |
| • Key words: <i>Non-Orthogonal Multiple Access; AI-Driven Non-convex Optimization</i> | |
| Interference Signal Analysis and Prediction Verification Technology (Completed) | Sep. 2024 – Jul. 2025 |
| • University-Institution Joint Innovation Fund | (Core Participant) |
| • Key words: <i>Intelligent Situational Awareness; AI-Driven Decision Making</i> | |
| Cell-free Massive MIMO Edge Intelligence Technology (Completed) | Oct. 2022 – Oct. 2023 |
| • National Innovation Project (No.TQ0331TS01023) | (Technical Leader) |
| • Key words: <i>Reconfigurable Intelligent Surface; Edge Offloading and Computing</i> | |
| Cooperative Beamforming Enhanced 5G/B5G Mobile Communications (Completed) | Jun. 2021 – Jun. 2023 |
| • Postgraduate Innovation and Practice Fund Project in Shaanxi Province (No.S202110699420) | (Project Manager) |
| • Key words: <i>Coordinated Multiple Points; Cellular Interference Elimination</i> | |

Experiences (Selected)

Internship:

- **FPGA Embedded Development**, Huarui Hengtai Tech. Co., Ltd – Guangzhou, China Sep. 2024 – Oct. 2024
- **Huawei Certified ICT Associate**, Xiantong Network Tech. School – Xi'an, China Jul. 2021 – Aug. 2021
- **Robotics Training**, Robot Center, NPU – Xi'an, China Mar. 2021 – Jun. 2021

Student Work:

- **Graduate Class President**, School of E&I, NPU – Xi'an, China Sep. 2023 – Present
- **Undergraduate Dean's Office Assistant**, School of E&I, NPU – Xi'an, China Feb. 2025 – Jul. 2025
- **Teaching Assistant**, *Fundamentals of Analog Electronics*, NPU – Xi'an, China Sep. 2023 – Jan. 2024
- **Teaching Assistant**, *Machine Learning: Principle and Application*, NPU – Xi'an, China Jun. 2023 – Aug. 2023

Skills

- **Natural Languages:** Mandarin (Native), English (CET4: 591/710; CET6: 520/710)
- **Programming Languages:** Matlab, Python, C/C++, G(Graphic)
- **Drawing Softwares:** Matlab, Origin, Visio, PowerPoint
- **Machine Learning Algorithms:** Neural Network, LSTM (Long Short Term Memory Network), DRL (Deep Reinforcement Learning)