

# Zian Chen (English Name: Adam Fitz)

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## Education

### Northwestern Polytechnical University (NPU)

Sep. 2023 – Mar. 2026(Expected)

- *M.Eng. Information and Communication Engineering* Mark: **93/100** 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:** Artificial Intelligence(AI), 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)* Mark: **89/100** 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

[C<sub>1</sub>] **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*)

[J<sub>1</sub>] Qian Xu, **Zian Chen**, et al. Anti-Jamming Design for Sensing-Assisted Reliable Orthogonal Time Frequency Space Communications [J], IEEE Wireless Communications Letters. (*SCI Q1, Under Review*)

[P<sub>1</sub>] Qian Xu, **Zian Chen**, et al. A Highly Reliable and Secure Transmission Method Based on OTFS [P], Invention Patent in China. (Patent No.CN119276674A)

[P<sub>2</sub>] 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)

[P<sub>3</sub>] 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)

[P<sub>4</sub>] 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)

[P<sub>5</sub>] 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)

[P<sub>6</sub>] 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)

<b>Multi-Dimensional Joint Secure Transmission for UAV-Ground Communications</b>	Apr. 2022 – Present
• National Natural Science Foundation (No.62201462)	(Student Leader)
• Key words: <i>Orthogonal Time Frequency Space; Beamforming and Precoding Design</i>	
<b>Resource Optimization Theory for UAV-Aided Multi-User Secure Communications</b>	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>	
<b>Jamming Signal Analysis and Prediction Technology (Completed)</b>	Sep. 2024 – Jul. 2025
• Innovation Fund for Technical Fields (No.WLCOM-2024-JAM)	(Core Member)
• Key words: <i>Intelligent Situational Awareness; AI-Driven Decision Making</i>	
<b>Cell-free Massive MIMO Edge Intelligence Technology (Completed)</b>	Oct. 2022 – Oct. 2023
• National Innovation Project (No.TQ0331TS01023)	(Technical Leader)
• Key words: <i>Reconfigurable Intelligent Surface; Edge Offloading and Computing</i>	
<b>Cooperative Beamforming Enhanced 5G/B5G Mobile Communications (Completed)</b>	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)

<b>Technology Internships:</b>	
• <b>FPGA Embedded Development</b> , Huarui Hengtai Tech. Co., Ltd – Guangzhou, China	Sep. 2024 – Oct. 2024
• <b>Huawei Certified ICT Associate</b> , Xiantong Network Tech. School – Xi'an, China	Jul. 2021 – Aug. 2021
• <b>Robotics Training</b> , Robot Center, NPU – Xi'an, China	Mar. 2021 – Jun. 2021
<b>Student Work:</b>	
• <b>Graduate Class President</b> , School of E&I, NPU – Xi'an, China	Sep. 2023 – Present
• <b>Undergraduate Dean's Office Assistant</b> , School of E&I, NPU – Xi'an, China	Feb. 2025 – Jul. 2025
• <b>Teaching Assistant</b> , <i>Fundamentals of Analog Electronics</i> , NPU – Xi'an, China	Sep. 2023 – Jan. 2024
• <b>Teaching Assistant</b> , <i>Machine Learning: Principle and Application</i> , 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, AxGlyph, Inkscape
- **Machine Learning Algorithms:** Neural Network(CNN, GCN), Deep Reinforcement Learning(DDPG, TD3), Long Short Term Memory Network (LSTM)