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 (ETP)* *GPA: **3.9/4.1*** *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), Bid 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)* *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

[C_1] **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_1] 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_1] 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_2] 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_3] 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_4] 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_5] 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_6] Qian Xu, **Zian Chen**, et al. A Secure Transmission Approach Enpowered 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 — Jul. 2023
  Northwest China Regional **First Prize** (Commercial Track)
- "GigaDevice Innovation Cup" National Graduate Student Electronic Design Competition — Aug. 2024
  Northwest China Regional Second Prize (Technical Track)
- "Aviation, Aerospace & Navigation Cup" Innovation Competition (A Class) — Mar. 2024
  University-Level **First Prize** (***Team Leader***)
- Youth League Commendation Series — Apr. 2025
  University-Level **Top10** "Flag Youth League Branch" (**First Place, *Team Leader***)
- "Youth in a Prosperous Era, Striving in Prime Time" Annual Excellence Selection Series — Oct. 2024
  University-Level **Top10** "Model Class" (**¥10,000 Funding Awarded, *Team Leader***)

Projects **(Selected)**

Multi-Dimensional Joint Secure Transmission for UAV-Ground Communications — *Apr. 2022 – Present*
- National Natural Science Foundation (No.62201462) — (Student Leader)
- Key words: *Orthogonal Time Frequency Space; Beamforming and Precoding Design*

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: *Non-Orthogonal Multiple Access; AI-Driven Non-convex Optimization*

Interference Signal Analysis and Prediction Technology (Completed) — *Sep. 2024 – Jul. 2025*
- University-Institution Joint Innovation Fund — (Core Member)
- Key words: *Intelligent Situational Awareness; AI-Driven Decision Making*

Cell-free Massive MIMO Edge Intelligence Technology (Completed) — *Oct. 2022 – Oct. 2023*
- National Innovation Project (No.TQ0331TS01023) — (Technical Leader)
- Key words: *Reconfigurable Intelligent Surface; Edge Offloading and Computing*

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: *Coordinated Multiple Points; Cellular Interference Elimination*

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(CNN, GNN), Deep Reinforcement Learning(DDPG, TD3, Twin-TD3), Long Short Term Memory Network (LSTM)