

# Zilin Wang

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## EDUCATION

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Jinan University, Guangzhou, China

Sep. 2023 – Jul. 2027 (Expected)

B.Sc. in Mathematics

Total Average: 84/100

**Main Courses:** Abstract Algebra, Complex Analysis, Real Analysis(95), Functional Analysis, Numerical Analysis(89), Mathematics for Finance(96), Ordinary Differential Equations(89), Physics(90), Differential Geometry.

**Research Interests:** Dynamical Systems, Mathematical Physics, Representation Theory, and Visual Mathematics.

## PUBLICATIONS AND MANUSCRIPTS

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Z.Wang, Q.Liu, Z.Chen, and S.Fan., "Lipschitz-Regularized Path-Strength Refactoring for Differentiable Architecture Search," Under Review at Neurocomputing (Elsevier), 2026.

## ADDITIONAL MATH EXPERIENCE

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**Undergraduate Training Program for Innovation and Entrepreneurship** | Project Leader May. 2025 – Apr. 2026 (Expected)

- Decoupled the traditionally unstable bi-level optimization into a sequential single-level framework, effectively suppressing the "performance collapse".
- Introduced **Lipschitz constraints** to reformulate the neural search space, providing a rigorous connection between loss landscapes and path gradients through the principles of Real Analysis.
- Refactored architecture selection as a fitness evaluation task via **path-gradient integrals**, successfully bypassing the biased weight-sharing gradients that plague traditional differentiable search methods.
- Authored the paper *Lipschitz-Regularized Path-Strength Refactoring for Differentiable Architecture Search* (Lead Author).

## WORK

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**Associate** | Publicity and Media Center, School of Mathematics

2023-2024 Academic Year

- Designed official appointment letters; managed event photography and content creation for the WeChat official account.

**Director** | Publicity and Media Center, School of Mathematics

2024-2025 Academic Year

- Designed department canvas bags and coordinated administrative tasks as a student executive.

## HONORS AND AWARDS

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**Outstanding Student Cadre Scholarship**

2023–2024 Academic Year

**Academic Excellence Scholarship (Third-class)**

2024–2025 Academic Year

**China Undergraduate Mathematical Contest in Modeling**, Provincial Third Prize

Oct. 2024

**Asia and Pacific Mathematical Contest in Modeling (APMCM)**, National Second Prize

Nov. 2024

**The Chinese Mathematics Competitions (Mathematics Major Group)**, Provincial Third Prize

Nov. 2025