

Fangyu (Fun) WANG

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Education

Bachelor's degree in Mathematics and Applied Mathematics *Xiamen University Malaysia*
Bachelor's degree program *Sept. 2023 - Expected Jun. 2027*
Final grade: 3.22/4
Final year project: Freiman's theorem 

Work Experience

Shanghai BontunSic&Tech Co.,Ltd. *Feb. 2026 - Apr. 2026*
Project Assistant Intern *Shanghai, China*

- **Sourcing & Market Research**: Independently executed market research and resource sourcing tailored to specific client needs; screened and engaged potential partners across diverse channels.
- **Data Analysis & Evaluation**: Developed and maintained a comprehensive sourcing database; conducted multi-dimensional comparative analyses of target resources (focusing on cost, qualifications, and delivery capacity) to produce business evaluation reports, providing robust data support for final decision-making.
- **Project Execution**: Actively drove the end-to-end execution of projects; managed internal and external communications, tracked milestones, and ensured the timely completion of critical tasks.

Academic & Applied Experience

Statistical Modeling & Regression Analysis *Apr. 2026 - Sept. 2026*
Regression Analysis(R Language) *Selangor, Malaysia*

- Constructed a 4th-order hierarchical polynomial regression model to evaluate the nonlinear relationship between fixed acidity and pH in wine datasets.
- Conducted forward selection via partial F-tests and validated critical model assumptions, including normality, linearity, and homoscedasticity.
- Successfully identified and mitigated severe multicollinearity ($VIF > 5$) among higher-order terms by implementing a mean-centering transformation procedure.
- Developed simple linear regression models to forecast product sales based on advertising expenditures, calculating 95% confidence and prediction intervals to optimize budget allocation.

Time Series Analysis on Retail Sales Index *Apr. 2025 - Sept. 2025*
Time Series(R Language) *Selangor, Malaysia*

- Analyzed 24-year monthly retail sales index data, applying multiplicative decomposition and differencing techniques to achieve time series stationarity.
- Evaluated AR/MA/ARMA models via ACF/PACF structures and selected ARIMA(1,1,0) based on AIC criteria to forecast 12-month trend variations.

Numerical Computation & Algorithm Implementation *Apr. 2026 - Sept. 2026*
Numerical Analysis(Julia Language & MATLAB) *Selangor, Malaysia*

- Developed iterative solvers from scratch using Julia, implementing the multivariate Newton's Method and Backward/Forward Euler methods to approximate equilibrium solutions for non-linear Initial Value Problems (IVPs).

- Programmed the 2nd-order Runge-Kutta method coupled with the Adams-Bashforth Three-Step Method to evaluate numerical stability, calculating 3rd-order convergence and approximation errors against exact trigonometric solutions.
- Implemented a pure QR decomposition algorithm to extract matrix eigenvalues, subsequently optimizing the code with a Shifted QR algorithm to successfully resolve complex eigenvalues in ill-conditioned matrices.

Corporate Risk & Valuation Analysis
Finance(Excel)

Sept. 2024 - Jan. 2025
Selangor, Malaysia

- Executed quantitative risk assessments for two listed companies (Nestlé & Farm Fresh) by calculating specific volatility metrics (σ , Coefficient of Variation).
- Synthesized valuation indicators (DDM, P/E) to interpret the correlation between yield fluctuations and investment risks, providing data-driven portfolio recommendations.

Undergraduate Thesis
Freiman's theorem

Sept. 2025 - Sept.2026
Selangor, Malaysia

- Conducted comprehensive research on the structural properties of finite sets with small doubling, culminating in a rigorous structural proof of Freiman's Theorem.
- Synthesized interdisciplinary mathematical frameworks, utilizing probability theory (Ruzsa Modeling Lemma), harmonic analysis (Bogolyubov's lemma), and geometry of numbers to establish complex theoretical bounds.

Extracurricular & Additional Experience

Social Service Community Activity
Event & Game Planner

Apr. 2025 - Sept. 2025
Selangor, Malaysia

Designed and executed an community event simulating the daily challenges faced by people with disabilities. Managed event logistics, coordinated volunteer assignments, and developed comprehensive emergency contingency plans to ensure smooth execution.

Part-time Job
Various Part-time Roles

Jun. 2019 - Sept. 2026
Shanghai, China

Worked various part-time jobs in the service industry, including kitchen staff and event assistance.

Skills, Languages & Interests

Technical Skills	R, Julia, MATLAB, Microsoft Office, L ^A T _E X.
Languages	Mandarin (Native), English (Fluent), German (Basic).
Interests	Basketball, Philosophy, Literature, Video Games.