

Wenjie Luo

Data Analyst | Decision Optimization | Graduating Jan 2027

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PROFILE

Turn business questions into clear metrics and analytical models. Experience in market research, SQL, mathematical optimization and transport data, using baselines and controlled comparisons to support decisions.

EDUCATION

- National University of Singapore | MSc Civil Engineering**Aug 2025 - Jan 2027
- Transport focus; research in transportation information and control.
- Chang'an University | BEng Transportation Engineering**Sep 2021 - Jun 2025
- GPA 3.16/5.0; approximately top 15% of the cohort.

EXPERIENCE

- Chery International | Product Intern**May 2026 - Jun 2026
- Created 15 personas and 5 VOC reports from customer feedback; used competitor data and vehicle length, price and registration bubble charts to inform product positioning.
 - Produced sales forecasts and a Gantt plan for KD (knock-down) production and logistics, supporting market analysis and cross-functional scheduling.
- Expeditors | Supply Chain Assistant**Dec 2024 - Apr 2025
- Improved document-processing spreadsheets with VLOOKUP and pivot tables, raising efficiency by approximately 30%; refined existing standardized checks to reduce manual errors.

PROJECTS

- Malaysia Automotive Metrics and Data Assistant**Aug 2026
- Defined wholesale, registration and market-share metrics with SQL templates; linked demo-warehouse outputs to source tables through a 14-node, 20-edge lineage graph.
 - Answered 22 of 30 authored questions correctly and requested clarification on 8; tested clarification checks by ablation and documented assumptions for modeled registrations.
- LP/MIP Modeling and Solver Experiments**Sep 2026
- Built a modeling layer, two-phase simplex and branch-and-bound; checked 11 instances against HiGHS. One vehicle schedule needed 1 search node with an assignment model, versus 21–31 with big-M.
 - Validated pure-integer Gomory cuts on 5,376 binary points. Three knapsack cases needed only 1 search node; a counterexample rose from 29 to 31 nodes, showing that cuts can add work.
- NAVSIM | Factorial Experiments and Evaluation**Aug - Sep 2026
- On 12,146 scenes with a shared cache, the rule ladder gained 0.296 PDMS from ground-truth map centerlines and 0.040 from GT boxes plus braking; computed paired 95% bootstrap intervals.
 - Separately, a 2×2 MLP experiment with 3 seeds per cell found that adding GT boxes to map-aware models significantly reduced PDMS in all seeds while open-loop L1 barely changed.

SKILLS

Analytics: Python, SQL, Excel, metric definitions, data lineage, ArcGIS, DBSCAN
Methods: LP/MIP, two-phase simplex, branch-and-bound, paired bootstrap, factorial experiments