RYAN ZHANG

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SKILLS and INTERESTS

- Proficient in **PTV Vissim, Synchro, ArcGIS, AutoCAD,** Civil 3D, MS Office Suite, Revit, Bluebeam
- Knowledge in Auto level, Total station, with full G license
- Proficient in Python, Matlab, VBA, JavaScript
- Fluent in English and Mandarin

WORK EXPERIENCE

Transportation Modelling and Analyst | BA Consulting Group | Toronto, ON   **May - Sept 2025**

- Designed roadway and intersection improvements in Northeast Pickering along major corridors, including future-oriented traffic signal timing plans to enhance corridor efficiency.
- Calibrated and optimized traffic models in **VISSIM** and **Synchro** using Python, focusing on signal coordination, queue reduction, and travel time improvements across multi-modal systems.
- Analyzed corridor data from Visum models and **HCM 2010** reports and incorporated feedback from bi-weekly meetings with City representatives to develop practical strategies for corridor management.

Project Coordinator | Bird Construction Group | Toronto, ON   **Sep - Dec 2024**

- Managed the procurement of city building permits and coordinated site inspections to ensure compliance with the Ontario Building Code for office renovation projects.
- Worked on creating and obtaining contract documents to and from sub-trades and clients, such as performance bonds, prime contracts, and change orders.
- Coordinated with sub-trades, architects, and engineers to ensure renovation projects met client expectations, addressing deficiencies promptly and delivering on schedule.

Project Estimator | Flynn Canada Ltd. | Mississauga, ON   **Jan - May 2024**

- Thoroughly inspected **12 projects** in the GTA and surrounding areas for tender packages, land requirements, and pre-construction drawings, to provide over **two million dollars** of accurate estimates.
- Grasped the bidding and tendering process of accessing and submitting waterproofing, roofing, and metal siding project bid documents and bid bonds.
- Coordinated site visits, post-award work orders, and hand-offs with GCs, suppliers, and clients.

Water Infrastructure Engineer | Andrews Engineer | Etobicoke, ON   **May - Sept 2023**

- Communicated with clients and colleagues to assign **hundreds** of rehabilitation recommendations to pipelines in Toronto, Chatham-Kent, and surrounding areas.
- Collaborated on and authored engineering reports for over **10 kilometers** of pipes within Toronto.
- Combined Excel, Microsoft Access, ArcGIS, and DCAD to make changes to pipeline configurations and analyzed their data, including pipe size, location, and usage.

PROJECTS

Vehicle Tracker & Counter | Personal Project   **May 2025 - Present**

- Developed a computer vision–based vehicular tracker and counter using Raspberry Pi hardware to collect intersection traffic data for integration with micro-simulation models.

PR & Finance Team Captain | Uwaterloo Steel Bridge Design Team   **Sep 2022 - Present**

- Helped consistently gather **$20,000** worth of funding through company pitching for years of international and national competitions, while maintaining over **30** active club members.

EDUCATION

University of Waterloo, Faculty of Engineering | Waterloo, ON   **Sep 2022 - Present**
- Candidate for Bachelor of Applied Science, Civil Engineering Honours
- GPA: 3.80/4.00   • **Certificate:** Working at Heights, WHMIS