Julian Tang

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Education

University of Waterloo – Candidate for Bachelor of Mathematics, Honours (with Computer Science minor)
- Majoring in Statistics, estimated graduation Dec. 2025

Experience

Full-stack web developer — Speedyweb Outletshop — Vaughan, ON   January 2024 – May 2024
- Built a webstore using Ruby on Rails to better facilitate product sales
- Handled deployment over Heroku as well as the creation and management of the webstore's AWS S3 buckets, PostgreSQL database, and Redis cloud cache database

Student Design Teams

Autonomy Subteam Member – Waterloo Aerial Robotics Group   May 2024 – Present
- Aided in debugging of pathing code which controlled the competition aircraft built for the AEAC 2024 National UAS Competition
- Won both phases of the AEAC 2024 National UAS Competition

Selected Projects

Reversi (https://github.com/0-GEE/reversi)
- Command-line application which implements the board game Reversi
- Written in C++

Markup Manager (https://github.com/0-GEE/markup-manager)
- A data management system which implements an XML-like markup language
- Written in C++

Imageboard (https://github.com/0-GEE/imageboard)
- A danbooru-like imageboard web application which features an in-house Boolean search engine
- Written in Python, HTML, CSS, and JavaScript using Django, jQuery, and Bootstrap

Collabotron (https://github.com/0-GEE/collabotron)
- A client-server system designed to streamline collaborative osu! beatmap creation by allowing all collaborators to sync their local beatmap versions quickly and efficiently.
- Written in Python (backend) and C# (frontend/client application) using Flask and WPF

Name Interpolation (https://github.com/0-GEE/name-interpolation)
- An experiment in using Spline interpolation to recreate a handwritten nickname
- Written in Python using Numpy and Matpoltlib

Skills

- **Software:** C, C++, C#, Python, Racket, MySQL, SQLite, PostgreSQL, HTML, CSS, JavaScript, R, Rstudio, Make, Git, GitHub, Bash, GDB, ArduPilot, Mission Planner, dotnet, Microsoft Visual Studio, Microsoft Visual Studio Code, LaTex
- **Technologies:** Ruby on Rails, Numpy, Matplotlib, Ultralytics, OpenAI API, Linux, Django, Flask, jQuery, Bootstrap, WPF, .NET, Tailwind
- **Protocols:** HTTP, REST
- **Theory:** Algorithms, Data Structures, Propositional Logic, Set Theory, Enumeration, Calculus, Linear Algebra, Probability, Statistics (Estimation, Linear Regression, Hypothesis Testing, Sampling)
- **Communication:** Excellent competency in written and verbal communication in English (native speaker)