Derek Song

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EDUCATION

Wilfrid Laurier University

Waterloo, ON

Bachelor of Science in Computer Science (Co-op Option), Minor in UX Design

September 2023 - Present

Expected graduation: April 2027, GPA 10.5/12 (3.8/4.0)

Relevant topics: Data Structures, Databases, Discrete Mathematics, Agile Design, Linear Algebra, Tree/Graph Theory

EXPERIENCE

Council Administrative Assistant, Toronto City Council

April 2024 - Present

City of Toronto

Toronto, ON

- Interviewed residents and analyzed bike usage UX data using Python, Pandas, Plotly, Dash, and JSON for City Councillor Jamaal Myers
- Developing an interactive event map dashboard using React, TypeScript, Flask, Firebase, and the Toronto Open Data API
- Designed event and policy graphics (flyers, banners, posters) using **Adobe Illustrator/Photoshop/InDesign**; several printed and distributed to **30,000+ households**
- Captured and edited 1,000+ photos using a **DSLR** and **Adobe Lightroom** for promotional use
- Supported planning and marketing for major events, including a BBQ (1,000+ attendees) and volunteer appreciation event (125+ attendees, 5+ community groups)

Community Planner

November 2021 - August 2023

TTCriders

Toronto, ON

- Implemented a tool to calculate the total time lost due to the Line 3 Scarborough shutdown from a user-submitted form using React, Next.js, and the Google Sheets API
- Developed a website to visualize the effects of bus delays using HTML, CSS, JavaScript
- Designed, researched, and contributed to our Wheel-Trans and Line 3 Scarborough report using Adobe InDesign
- Made short-form videos using Adobe After Effects and Premiere Pro

PROJECTS

Toronto Census Visualizer | Python, Pandas, Plotly, Dash, JSON

July - October 2024

- Built a web app to visualize 2021 Census data across Toronto's 158 neighbourhoods using Plotly and Dash
- Parsed GeoJSON and JSON data using Pandas; built interactive visuals using Plotly and Dash

Atomic Search and Decay Calculator | JavaScript, HTML, CSS

May 2022 - February 2024

- \bullet Developed for Gryph Hacks 2022 to enable efficient atomic table search and decay calculations
- Refactored and debugged code in 2024 using modern best practices; published on the Chrome Web Store with 25+ daily users and a 5-star rating

$\textbf{Laurier STEM Publishing Society Website} \mid \textit{WordPress, Cloudflare}$

October 2024

• Configured domain, DNS records, and backend infrastructure for a self-hosted WordPress site; optimized performance to handle 41,500+ requests and 2,250+ monthly visitors

TransitBloom | Figma, Adobe Illustrator

December 2024

- Worked in a team of 2 to research and design a sustainable and accessible transportation app using Figma
- Presented a business case to judges, highlighting market potential; won 2nd place in UX Laurier competition

YUlearn | React, TypeScript, PostgreSQL, Next.js, Python, Plotly

March 2025

- Collaborated with a team of 6 at Hack the Six 2024 to develop a full-stack app to easily explain computer science topics to students
- Created UI mockups and object-oriented analysis and design, developed front-end with React, forecasted future enrollment and market demand using Python and Plotly
- Achieved 3rd place in the York University Lassonde BEST Startup Hackathon

TECHNICAL SKILLS

Languages, Tools, and Frameworks: Python (Pandas, Plotly, Dash, Flask), Java, JavaScript, TypeScript, React, C, ARM Assembly, HTML, CSS, JSON, WordPress, Cloudflare DNS, GitHub, Git, QGIS, Firebase, SQL, MS Office Design Tools: Adobe Photoshop, Illustrator, Lightroom, After Effects, Premiere Pro, Acrobat Pro, InDesign, Figma