

Derek Song

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EXPERIENCE

Graphics Administrative Assistant, Toronto City Council

April 2024 - Present

City of Toronto

Toronto, ON

- Designed 130+ marketing, event, and policy graphics using Adobe Photoshop, Illustrator, and InDesign for City Councillor Jamaal Myers; materials reached **30,000+ households** and increased community engagement by 20%
- Managed branding and marketing for large-scale events, including a 1,000+ attendee community barbecue, park consultation with 450+ residents, and a holiday market with 15+ sponsors
- Engineered and deployed a scalable Flask interactive event and dataset map integrating Firebase, Google Maps, and Toronto Open Data APIs, with threaded background tasks, Redis caching, and rate-limiting
- Analyzed and visualized \$170M+ in 2026 City Budget fleet commitments, emergency management expenditures, and Toronto Zoo revenue using Python and Pandas to support councillor budget briefings and policy decisions

Product Designer and Software Developer, Laurier Start-Up Lab

September 2025 - December 2025

Lazaridis School of Business & Economics at Wilfrid Laurier University

Waterloo, ON

- Deployed and maintained several end-to-end full-stack platforms, including the Winternship Job Portal, driving a **98% increase in revenue (\$3,400+)**, onboarding 137+ students, expanding job supply by 48%, and supporting 120+ positions
- Led user-centred design and usability testing** for a BU354 human resources dashboard, validating Figma prototypes with 59 students using **t and chi-square tests**, implemented findings in a secure backend using Prisma and BetterAuth
- Built a **real-time ingredient recognition system** for a grocery store, using TensorFlow, Keras, and Teachable Machine to classify food items and generate complementary product recommendations from a 20,000+ transaction dataset.
- Collaborated with entrepreneurs and directors to design 8+ end-to-end user flows for Elara's PowerBI payroll application, alongside investor-ready pitch assets for a film venture supporting multi-million-dollar funding applications.

Software Developer and Data Analyst

April 2025 - September 2025

Our Greenway Conservancy

Toronto, ON

- Deployed an interactive park route finder to determine shortest-path navigation with **Dijkstra's algorithm**, using React, Turf.js, TypeScript, and PostgreSQL, with geospatial data processed in QGIS
- Automated web-to-LaTeX pipeline** in Python using BeautifulSoup to scrape and generate structured documents **reducing report preparation time by 80%** and ensuring consistent formatting across 20+ documents
- Led a brand refresh and a heuristic evaluation utilizing Nielsen's principles to meet Web Content Accessibility Guidelines (WCAG) standards, resolving **16+ critical pain points** identified through stakeholder feedback and accessibility testing
- Developed a reusable HTML/CSS component kit website with documentation to streamline web development

Community Planner and Graphic Designer

November 2021 - August 2023

TTCCriders

Toronto, ON

- Co-authored Wheel-Trans and suburban transit reports, translating stakeholder accessibility data into policy findings
- Created short-form videos in After Effects, surpassing 6,000+ views, 200+ engagements, boosting web traffic by 15%

PROJECTS

Smart Bike Resistance Project | TensorFlow, Python, Swift, C++, Raspberry Pi Pico

January 2026 - Present

- Developed an AI-driven IoT system using TensorFlow Lite and Raspberry Pi Pico to predict optimal bike resistance in real-time, trained on 350+ Strava rides and Apple HealthKit metrics with continuous user feedback for model refinement

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

July 2024 - October 2024

- Visualized interactive demographic insights across 158 Toronto neighborhoods by processing 2,600+ line census dataset

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

March 2025

- Built a full-stack app (3rd place, Lassonde Hackathon); forecasted market potential and enrollment using linear regression

EDUCATION

Wilfrid Laurier University

Waterloo, ON

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

September 2023 - Present

GPA: 10.25/12 (3.8/4.0); Clubs: Executive Vice President at UX Laurier · Volleyball · Recreational Dance Team (5 performances)

TECHNICAL SKILLS

Languages & Frameworks: Python (Pandas, Plotly, Flask, TensorFlow, Keras), Java, JavaScript, VBA/VB, R, C, HTML/CSS, TypeScript (BetterAuth, Prisma, React, Next.js, Leaflet), SQL (PostgreSQL), Assembly, TailwindCSS, PowerBI, Swift

Tools & Platforms: Docker, Firebase, Cloudflare DNS, Git, GitHub, QGIS, WordPress, Supabase, AWS

Design: Figma, Adobe Photoshop, Illustrator, Lightroom, After Effects, Premiere Pro, InDesign, Acrobat, Procreate, Agile Design