

# Kurtis Lin

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## EXPERIENCE

<b>Software Developer</b> <i>Airfairness</i>	May 2025 – Aug 2025 Toronto, ON
<ul style="list-style-type: none"><li>Engineered AI analytics platform using <b>FastAPI</b>, <b>PostgreSQL/NeonDB</b>, <b>Redis</b>, <b>Alembic</b>, and <b>Docker</b>, processing <b>1,000+</b> flight disruption records to automate claim validation</li><li>Built regulatory-compliant scoring engine for <b>EU261</b>, <b>APPR</b>, and <b>US261</b> frameworks, standardizing claim classification across international markets.</li><li>Implemented Redis caching, improving system performance by <b>41%</b> and cutting response times from <b>11s</b> to <b>0.4s</b></li><li>Developed gradient boosting ML model, cutting processing load times by <b>28%</b> and enabling real-time analytics</li></ul>	
<b>Software Engineer</b> <i>Second Savour</i>	Aug 2025 – Present Waterloo, ON

<b>Software Engineer</b> <i>A&amp;B Daycare</i>	Jan 2024 – Sep 2024 Vancouver, BC
<ul style="list-style-type: none"><li>Deployed modern, responsive websites using <b>Next.js</b>, <b>React</b> and <b>Vercel</b>, enhancing company visibility by <b>32%</b></li><li>Enhanced user accessibility by implementing <b>WCAG 2.1</b> standards, improving site usability score from <b>68</b> to <b>91</b></li><li>Collaborated with businesses to craft websites embodying their unique culture and aspirational online presence</li></ul>	

## PROJECTS

<b>Urban Sentinel - Detecting Decay for Cities</b>   <i>Python, FastAPI, PostgreSQL, LightGBM, React</i>	
<ul style="list-style-type: none"><li>Achieved <b>2nd place</b> out of 300+ competing teams by delivering an innovative prototype and compelling pitch</li><li>Developed a real-time urban monitoring platform that integrates geospatial analytics to track urban decay</li><li>Collaborated with a team to build a backend using modern technology, processing up to <b>100+</b> live data streams</li></ul>	
<b>SLiM - Language Model Personalizer</b>   <i>Python, React, Typescript, Tailwind, Ngrok, SupaBase</i>	
<ul style="list-style-type: none"><li>Engineered SLiM (Smart LLM Router + Incremental Model Trainer), an agentic AI framework that reduces latency and cloud compute costs by auto-promoting repeated queries into lightweight specialized models.</li><li>Designed a smart routing layer using embeddings + cosine similarity to delegate tasks between large LM's</li><li>implemented <b>CUDA</b> integration, enabling users with NVIDIA GPUs to leverage the latest CUDA features for faster computation and improved performance</li></ul>	
<b>NanoWorks - DNA Origami Builder</b>   <i>Python, Nextjs, Pollinations.AI</i>	
<ul style="list-style-type: none"><li>Developed an innovative algorithm to build and visualize complex DNA structures through image representation</li><li>Showcased a MVP through compelling presentations, <b>demonstrating product features</b> and value to judges</li><li>Developed a frontend that integrates with the backend algorithm, assuring <b>smooth system functionality</b></li></ul>	

## TECHNICAL SKILLS

**Languages:** Python, JavaScript, Typescript, SQL, Pandas,  
**Frameworks & Libraries:** MySQL, NeonDB, Scikit-Learn, TensorFlow, SpringBoot, Redis, React, Vite  
**Developer Tools:** AWS, Vercel, Jupyter Notebook, Anaconda, Docker, Maven, git

## EDUCATION

<b>University of Waterloo</b> <i>Bachelor of Applied Science in Management Engineering</i>	Sep 2024 - Apr 2029 Waterloo, ON
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