

Karolina Tchilinguirova

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Education

York University BSc in Computer Science	Expected: Dec. 2025
<ul style="list-style-type: none">• GPA: 3.5/4.0• Awards: Three-time recipient of the Lassonde Undergraduate Research Award (\$24,300)	
Queen's University BSc in Geological Science	Graduated: Dec. 2019
<ul style="list-style-type: none">• Certificate in Geographic Information Sciences	

Experience

Research Assistant / Full Stack Developer , DARE! Lab at York University	Sept 2024 – Current
<ul style="list-style-type: none">• Spearheading the development of CiteFairly, an online tool designed to analyze biases in research citations, generate citation diversity statements, and leverage AI to recommend research papers that address citation biases by promoting balanced referencing.• Implementing a full-stack solution using Google Firebase, Node.js, React, JavaScript, and Tailwind CSS• Integrating external APIs such as OpenAlex, Semantic Scholar and Gender-API to extract and classify reference data based on author demographics.• Preparing a conference paper for the 2025 International Conference on Automated Software Engineering.	
Citation Biases Researcher (Award Recipient) DARE! Lab at York University	May 2024 – Aug 2024
<ul style="list-style-type: none">• Research focus on detecting and mitigating citation biases in computing literature• Analyzed 90,000 papers from top software engineering journals and identified a consistent trend in literature where women are under-cited and men are over-cited, with this disparity steadily increasing since 2009.• Utilized Python and R to conduct analyses, stored data using MongoDB, leveraged external APIs including CrossRef and Gender-API to extract and classify reference data based on author demographics.• Presented at the 2024 Lassonde Undergraduate Research Conference and the 2024 Canadian Celebration of Women in Computing Conference - Open Source Repository [GitHub] - Preprint available on arXiv [arXiv/2410.02801]	
Geospatial Machine Learning Researcher (Award Recipient) , GNSS Lab at York University	May 2023 – April 2024
<ul style="list-style-type: none">• Research focus on exploring AI applications in Global Navigation Satellite Systems• Utilized Python to conduct analyses and leveraged Machine-Learning package Scikit-learn to classify the quality of smartphone positioning data points to 92% accuracy.• Presented an independent summer project at the 2023 Lassonde Undergraduate Research Conference. [Research Poster]• Collaborated with a post-doc and a PhD candidate to co-author a conference paper.	

Publications

Improving Smartphone Positioning by Adapting Measurement Noise Covariance using Machine Learning	Sept 2024
Anurag Raghuvanshi, Karolina Tchilinguirova , Soroush Sasani, Sunil Bisnath	10.33012/2024.19761

Projects

eCommerce Store	GitHub Live Demo
<ul style="list-style-type: none">• Developed an eCommerce Store with product pages, shopping carts, user accounts, and admin panel using React, TypeScript, and Tailwind CSS.• Implemented a dynamic store catalog in Flask and MongoDB that stores item details and forwards images from an Amazon S3 Bucket.• Server deployed with Render and client deployed with Vercel.	
RollCall - Personalized Stand-Up Report Generator	GitHub Live Demo
<ul style="list-style-type: none">• Developed a web app integrating with Google Calendar API to generate personalized daily roll-call summaries and insights into schedule structure.• Built the backend using Flask and MongoDB managing user data and retrieving calendar events securely via OAuth2 authentication. Implemented a user-friendly interface using React and Tailwind CSS for seamless interaction.• Configured and managed the project on Google Cloud Platform (GCP), enabling API access, creating API keys, and implementing OAuth2 for secure user authentication.	

Technologies

Languages: Python, R, Java, SQL, JavaScript, TypeScript **Frameworks & Libraries:** Node.js, Express, Flask, React, TailwindCSS
Databases & Platforms: MongoDB, Firebase, Render, Vercel, Google Cloud Platform
Development Tools: Linux, Git, GitHub, VS Code, PyCharm, IntelliJ IDEA, Eclipse, Figma