

# Karolina Tchilinguirova

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## Education

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

## Experience

<b>Research Assistant / Full Stack Developer</b> , DARE! Lab at York University	Sept 2024 – Current
<ul style="list-style-type: none"><li>• Spearheading the development of <b>CiteFairly</b>, 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.</li><li>• Implementing a <b>full-stack solution</b> using <b>Google Firebase</b>, <b>Node.js</b>, <b>React</b>, <b>JavaScript</b>, and <b>Tailwind CSS</b></li><li>• Integrating external APIs such as <b>OpenAlex</b>, <b>Semantic Scholar</b> and <b>Gender-API</b> to extract and classify reference data based on author demographics.</li><li>• Preparing a conference paper for the <b>2025 International Conference on Automated Software Engineering</b>.</li></ul>	
<b>Undergraduate Researcher (Award Recipient)</b> DARE! Lab at York University	May 2024 – Aug 2024
<ul style="list-style-type: none"><li>• Research focus on <b>detecting and mitigating citation biases in computing literature</b></li><li>• Analyzed <b>90,000 papers</b> 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.</li><li>• Utilized <b>Python</b> and <b>R</b> to conduct analyses, stored data using <b>MongoDB</b>, leveraged external APIs including <b>CrossRef</b> and <b>Gender-API</b> to extract and classify reference data based on author demographics.</li><li>• Presented at the 2024 Lassonde Undergraduate Research Conference and the 2024 Canadian Celebration of Women in Computing Conference - Open Source Repository [<b>GitHub</b>] - Preprint available on arXiv [<b>arXiv/2410.02801</b>]</li></ul>	
<b>Undergraduate Researcher (Award Recipient)</b> , GNSS Lab at York University	May 2023 – April 2024
<ul style="list-style-type: none"><li>• Research focus on <b>exploring AI applications in Global Navigation Satellite Systems</b></li><li>• Utilized <b>Python</b> to conduct analyses and leveraged Machine-Learning package <b>Scikit-learn</b> to classify the quality of smartphone positioning data points to 92% accuracy.</li><li>• Presented an independent summer project at the 2023 Lassonde Undergraduate Research Conference. [<b>Research Poster</b>]</li><li>• Collaborated with a post-doc and a PhD candidate to co-author a conference paper.</li></ul>	

## Publications

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

## Projects

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

## 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