

Markham, Ontario
Canada

Billy Lee

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Education

Waterloo, ON Canada	University of Waterloo	Sept 2020 – Aug 2024
<ul style="list-style-type: none">• Honours Bachelor of Mathematics. Cumulative GPA: 88.56/100.• Double Major: Computational Mathematics, and Combinatorics & Optimization.• Minor: Computer Science.		

Experience

Lead Developer / DevOps Engineer	University of Waterloo	Jan 2024 – May 2024
<ul style="list-style-type: none">• Developed a Next.js-based web platform for a figures of speech research group, enabling user submissions and annotations of figure instances.• Revamped the CI/CD process using GitLab pipelines, Docker, and Docker Compose, automating and accelerating testing, building, and deployment phases, and saving over 30 minutes per deployment.• Established a robust staging environment to streamline testing and quality assurance, ensuring a more reliable and efficient development workflow.• Hosted weekly stand-up meetings, conducted code reviews for merge requests, and set up a documentation site with a CD pipeline to ensure proper project documentation.		

Full Stack Developer	University of Waterloo	Sept 2023 – Dec 2023
<ul style="list-style-type: none">• Implemented advanced features including rich text support and dynamic highlighting functionality for annotations.• Reduced page load time by 80% by consolidating data retrieval to a single API call with server-side props, utilizing Context API for efficient data distribution, and implementing pagination to minimize data overload.• Engineered and deployed robust backend endpoints for the Golang-based REST API with MySQL database.• Authored comprehensive tests using Jest and React Testing Library to ensure code integrity and functionality.		

Software Developer Intern	Hewlett Packard Enterprise	May 2023 – Aug 2023
<ul style="list-style-type: none">• Developed and launched a React.js-based demo portal as the sole developer, effectively showcasing HPE GreenLake solutions and streamlining the demo process by at least 50%.• Orchestrated the automation and optimization of demo processes, utilizing Python and Bash scripts, and managed VM environments to ensure efficient and effective demo execution, reducing setup time by approximately 80%.		

Software Developer Intern	Bolee Machine Tool Ltd.	Apr 2023 – May 2023
<ul style="list-style-type: none">• Tackled the challenge of time-consuming manual product entries on the company's WordPress e-commerce site, previously reliant on a lengthy admin GUI process.• Revolutionized product management by developing a Python-based automation tool using Selenium for the company's WordPress e-commerce site; achieved a remarkable 99% reduction in time required for bulk price updates.• Managed the company's server system by configuring the VPN server and upgrading the storage of the NAS server.		

Projects

- **Instagram Clone** 📷. Developed an Instagram clone using Next.js, TailwindCSS, Express.js, MongoDB, Socket.io, and Node.js, replicating core features such as user registration, profiles, post creation, and real-time chat.

Skills

- **Languages:** TypeScript, JavaScript, HTML, CSS, Python, C++, Go, Bash, SQL, LaTeX, MATLAB
- **Technologies/Frameworks:** React, Next.js, Socket.io, Node.js, Express.js, MongoDB, PostgreSQL, MySQL, TailwindCSS, Docker, Github Actions, GitLab CI/CD pipelines, Jest, React Testing Library, Selenium, Git, Linux/Unix.