

# Brian Nguyen

Meta ABCS Fellow | Calgary, AB, Canada | [brian@bnguyen.ca](mailto:brian@bnguyen.ca) | [LinkedIn](#) | [GitHub](#) | [Website](#)

## EDUCATION

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### University of Calgary

*B.Sc., Software Engineering (Honors Dean's List: Cumulative GPA - 3.9)*

Calgary, AB, Canada

September 2020 - April 2025

## EXPERIENCE

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### Software Engineer Intern

*Tesla — Energy*

May 2024 – August 2024

*Palo Alto, CA, USA*

- Resolved critical **OAuth 2.0** token management issue in **Nginx**-based API Gateway affecting **3,500+** external users. Implemented token refreshing, saving users **~30 hours** per year in re-login time. Managed deployments and rollbacks using **ArgoCD** and **Helm Charts** to ensure minimal downtime and continuous delivery.
- Developed and designed a new experience for interacting with **1,000,000+** daily alerts received from Tesla Energy Devices in **React.js**. Integrated **Scala API** pagination by implementing a custom hook in **React.js**.
- Developed and implemented a performance analytics dashboard using **React.js**, **GraphQL** and **Splunk**. Defined key metrics tracked **250,000+** daily data points: unique users, error logs, web vital events, and API performance.

### Software Developer Intern

*IBM — CP4BA/Workflow, Watson Orchestrate*

May 2023 – May 2024

*Toronto, ON, Canada*

- Spearheaded the development of a new internal **React.js** component library, comprising of **10** reusable components, leveraging **Dart Sass** and **Typescript**, to improve and optimize frontend development processes by **~25%**.
- Enhanced the workflow orchestration system, providing a **React.js** based task list integrated with **Redux**, enabling users to claim/reassign/modify task states, leading to a **~35%** increase in user productivity and task completion.
- Designed and implemented a new authoring topology that streamlined backend processes, optimizing **SQL** queries to improve first page load times by over **50%**.
- Optimized the performance of the skill authoring and workflow execution components, resulting in a **~20%** reduction in skill creation time and improved efficiency in automated processes.
- Created reusable **Java** page objects and maintained a **300**-case test suite with **Selenium** and **Cypress**, achieving **90%** code coverage for authoring environments.

### Software Developer (Research Assistant)

*Schulich School of Engineering, University of Calgary*

May 2022 – September 2022

*Calgary, AB, Canada*

- Implemented a balanced random forest algorithm using **scikit-learn** and **TensorFlow** to predict in-hospital mortality of ICU patients. Achieved **87%** accuracy on **10,000** records from the MIMIC-III Clinical Dataset.
- Developed a Bloom filtering algorithm, enabling local authorities to encrypt/anonymize sensitive datasets.
- Assisted in NLP tasks using **Python** and **NLTK** to classify hospital re-admissions from clinical notes.
- Adapted a Recurrent Neural Network model on homeless shelter client data to work with public domain health data, utilizing **Python** and **TensorFlow**.

## CLUBS AND EXTRACURRICULARS

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### Code the Change YYC | *Full Stack Developer*

January 2023 – Present

- Led the development of a **React.js** based volunteer management dashboard for local non-profit, Action4Humanity, resulting in a **~25%** improvement in volunteer retention rates. Streamlined the volunteer management process by implementing automated shift scheduling and messaging features, saving the organization **~20** hours per week.
- Doubled the development efficiency for the entire team by integrating a type-safe, serverless back-end using **tRPC**, **Prisma**, **AWS Lambda**, and **PostgreSQL**.

### University of Calgary Solar Car Team | *Technical Manager/Lead*

October 2021 – Present

- Leading a team of 26 in the development of "Schulich Helios" - 6th generation solar MOV. Utilizing **Jira** and **Confluence** to effectively manage team planning, assignments and reporting tasks, resulting in a **10%** increase in efficiency project execution turnaround time in accordance with **Agile** development practices.
- Oversaw and maintained the team's technical infrastructure, including **Jira/Confluence**, **DigitalOcean** droplets, **Docker** containers/images, **JFrog** Artifactory, **AWS S3** Buckets, **EC2** instances, and **Website/GitHub** maintenance. Streamlined **CI/CD** pipelines to ensure optimal efficiency.

## TECHNICAL SKILLS

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**Web Development:** React.js, Typescript, Javascript, Node.js, Express.js, Flask, FastAPI, CSS, SASS/SCSS, Tailwind  
**Technologies:** Git/GitHub, Docker, Jenkins, Kubernetes, OpenShift, AWS, SQL, MongoDB, OpenAPI/Swagger