

# Pier-Alexandre Bouchard

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## Professional Experience

### Microsoft

#### SOFTWARE ENGINEER II – AI Photos Experiences (Experiences + Devices)

Feb 2022 – Present

**Technologies:** TypeScript, C++, ReactJS, Redux, Node.js, Yarn, Npm

I am dedicated to creating cutting-edge, AI-powered photo experiences across the Microsoft ecosystem, specifically targeting Windows and iOS platforms, benefiting millions of users.

Currently, my focus lies in elevating AI editing features within Windows Photos, emphasizing UI/UX development and implementing accessibility enhancements for a more inclusive experience.

#### SOFTWARE ENGINEER II – Azure (CXP)

Oct 2019 – Feb 2022

**Technologies:** C#, TypeScript, ReactJS, Redux, Node.js, Microsoft Azure Cloud Services, Microsoft SQL Server, Npm, Jest

I built features for an internal web application to automatically on-board Microsoft Azure Services to dozens of intelligent diagnostic infrastructures. This ensures an exceptional support experience for Azure's millions of customers.

- Led a cross-team effort to develop a module that provides an easy to author, rich and problem-based troubleshooting experience in Azure. I built and shipped all of the UI and completed the integration with our partner's platforms to deploy the experiences to the portal. The feature is currently in GA.
- Built & led development of the team's internal UX framework for creating fully accessible Web applications by addressing complex business scenarios of the Azure support experience. I built a rich text editor, a markdown editor, a hierarchical dropdown, a tag picker, and more. These are now widely used and popular across the entire organization.
- Created a powerful Feature Flag library for A/B Testing to safely expose features to our end users. Added monitoring to the library to learn from our experiments and to ensure the best experiences for our users.

### Amazon

#### SOFTWARE DEVELOPMENT ENGINEER – Alexa (HHO)

Aug 2018 – Aug 2019

**Technologies:** Java, AWS (DynamoDB, Lambda, SQS, S3, EC2), Mockito, JUnit, Spring

I built features in Alexa's highly-scalable backend where nearly a million timers are created and triggered in real-time on 100 million devices. Timers are one of the top 3 most used features of Alexa, Amazon's voice-controlled assistant.

- Designed & built RESTful APIs for timers to be used at a massive scale with low latency (< 2s at P99) in Alexa. The REST API was used by many internal core functions and external third-party skills.
- Helped natural language understanding (NLU) household team build geolocated & device-targeted timers in Alexa; Wrote the grammars that identified the targeted timer's intents.
- Set up monitoring & alerting for timer infrastructure ensuring reliability and stability of the timer services.

### Paradigm

#### SOFTWARE DEVELOPER – BusinessCore360

Sep 2014 – Aug 2018

**Technologies:** Java, PostgreSQL, Microsoft SQL Server, Hibernate, Maven, WildFly, Mockito, JUnit

I built features in BusinessCore360, a custom enterprise resource planning (ERP) tool used by scores of manufacturers of windows, doors, shutters and blinds all over Canada, USA & France.

- Streamlined fabric cutting for the curtain fabrication process by creating a 2D fabric cutting optimizer module for BusinessCore360. This directly minimized fabric wastage and led to annual savings of thousands of dollars for customers.
- Decreased development time and cost related to third-party data imports from ERPs by 70% by developing a generic ETL tool using Microsoft Excel as input format.

## Education

Bachelor of Software Engineering (*With distinction*), (2014), École de technologie supérieure, Montreal, QC