

Mackenzie Furlong

Toronto, ON • mackenziefurlong@hotmail.com • (289) 389-4255
linkedin.com/in/mackenzie-furlong/ • mackenziefurlong.tech

Professional Summary

Full Stack Developer with 5+ years of experience building scalable, cloud-based web applications. Strong background in C#, modern JavaScript frameworks (React & Lit), and AWS. Experience developing enterprise-level platforms serving large user bases, with a proven ability to collaborate across teams to deliver high-quality, maintainable solutions.

Technical Skills

Languages: C#, JavaScript, TypeScript, SQL, Java, Python

Frameworks & Libraries: React, Lit, Node.js, Express

Cloud & DevOps: AWS (S3, Lambda, CloudWatch), Jenkins, GitHub Actions, ElastAlert, CI/CD Pipelines

Databases: SQL Databases, MongoDB

API & Architecture: REST APIs, Microservices Architecture

Testing: Jest, Unit Testing, Integration Testing

Tools: GitHub, Kibana, Honeycomb, Jira, npm

Professional Experience

D2L

Remote

Senior Software Developer

Sep 2021 – Present

- Developed scalable full-stack features using Lit, React and C#, contributing to a cloud-based Learning Management System (LMS) serving millions of users.
- Built reusable UI components with React and Lit, improving development efficiency and consistency across the platform.
- Designed and implemented back-end services in C# to enhance activity management functionality and improve activity load performance by over 30%.
- Collaborated with cross-functional teams, including developers, designers, and product stakeholders, to translate business requirements into technical solutions.
- Contributed to API development and integration, supporting seamless communication between microservices and enabling scalable and modular service development.
- Improved team code review practices, increasing pull request feedback by 1.9x and review engagement (pushback) by 1.7x.
- Supported CI/CD pipelines using Jenkins and GitHub Actions to streamline deployments.
- Worked within an AWS-based cloud environment, collaborating with platform teams to integrate and deploy application services.

SAPPHIR

Montreal, QC

Full Stack Web Developer

May 2020 – Sep 2020

- Collaborated with a small team to design and develop a loan web application based on business requirements.
- Developed front-end and back-end features using HTML, CSS, JavaScript, Node.js, Express, and MongoDB.
- Integrated third-party financial APIs and implemented secure authentication using OAuth 2.0.

Leadership & Experience

QUEEN'S UNIVERSITY

Kingston, ON

Teaching Assistant

Sep 2018 – Apr 2021

- Delivered instruction and mentorship in Java programming and software design.
- Supported classroom activities, including tutoring, grading, and exam review.
- Helped students strengthen problem-solving, algorithmic thinking, and programming fundamentals.

HOME STANDARDS ORG

Remote

Full Stack Web Developer (Volunteer)

Jan 2022 – Dec 2022

- Contributed to a non-profit platform that educates tenants on housing bylaw rights and violations.
- Built and maintained web application features using React, TypeScript, Express, and RESTful APIs.
- Integrated CMS functionality using Contentful and deployed services using DigitalOcean.

Education**QUEEN'S UNIVERSITY**

Kingston, ON

Bachelor of Computing (Honours) [Cum. 3.7 GPA]

2016 – 2021

- Specialization in Software Design
- Dean's List 2016-2021

Additional Information**Language:** Fluent in English; currently pursuing Spanish.**Interests:** Golf, Rock Climbing, Fitness, Travel, Hiking.