Nicholas Lee

nicholas9lee@gmail.com | github.com/nick9lee | Nick9lee.me | 403-903-5779 | Calgary, AB, Canada

Education:

University of Calgary   Graduated May 2023

Bachelor of Science in Software Engineering - GPA: 3.61/4.00 (with distinction)
Relevant Coursework: DSA, OOP, Software Testing, Databases, Distributed Systems, Data Science, Big Data

---

Work Experience:

Amazon - Software Development Engineer   July 2022 - Present
- Fees team is responsible for setting and processing all fees in Amazon. > 25B USD annually.

Amazon - Software Development Engineering Intern   May 2022 - August 2022
- Automated Profitability Management - Supplier Contract Optimization team.
- Designed/developed a new generic/reusable email service for Automated Vendor Negotiations (600,000+ users).
- Email Service is scaled to accommodate 45,000+ sent emails monthly.
- Ability to save email artifacts for later investigation, and collect metrics on emails sent out.
- Email Metrics Collected include Email Sent, Email Delivered, Link Clicked, Email Rejected, Email Opened, etc.
- Technologies Used: AngularJS, Express, Java, AWS, Lambda, DynamoDB, Cloudformation, Cloudwatch, etc.

Arcurve - Software Developer Intern   May 2021 - April 2022
- Contributed to a full-stack web application for tracking, visualizing, and forecasting gas delivery data.
- Numerous Fortune 500 companies currently employ the application.
- Developed production-ready features and unit tests using AngularJS and C#, including SQL deployment script for modification of up to 200,000 rows of data in an MSSQL database.
- Implemented UI test using SeleniumUI in C#.
- Notable Feature: Created a system for saving the state of 20+ display grids after user adjustments, such as modifying grid column order and toggling column visibility.
- Technologies Used: AngularJS, TypeScript, BootStrap, C#, Azure, SQL, CosmosDB, ASP.NET, Selenium UI, etc.

Projects: **Portfolio Website:** Nick9lee.me

r/Piazza
- Distributed version of r/place (collaborative art canvas), prioritizing replication, fault tolerance and consistency.
- The system utilized two proxies and three servers, each equipped with its own database and automatic restarts.
- Applied timestamps and locks to ensure data consistency across replicated databases.
- Leveraged React, Node.js, MongoDB, AWS EC2, Socket.io, and Nginx.

Plus 15
- Created an IOS app in Swift to assist users in navigating Calgary's downtown indoor hallways, spanning 16km.
- Integrated Calgary Open Data API to visualize hallway routes and provide lunch spot locations.

3D EEG Realtime Data Visualizer - NeuroNexus Hackathon 2020 (60 days)
- Developed a Real-time 3D visualization of dynamic brain networks from EEG data using Javascript and three.js.

Inline Textile Air Permeability Inspection System - Multidisciplinary Capstone Project
- Collaborated with Roswell Textiles to enhance their quality control process for biodegradable textile production.
- Manufactured a prototype, utilizing a Raspberry Pi for data collection, which relayed to CosmosDB for storage.
- Implemented real-time visualization of data on a React frontend, for immediate feedback on fabric quality.

Pathfinding Algorithm Visualizer
- IOS app developed in Swift to visualize pathfinding/search algorithms such as BFS, DFS and A*.

Languages: Java, C#, Swift, C++, C, Python, HTML, CSS, JavaScript, TypeScript, SQL
Technologies: BootStrap, AngularJS, React, ASP.NET, AWS, Azure, Git, three.js, SeleniumUI, MongoDB, RXJS, Node.js, Linq, Moq, JUnit, Lambda, DynamoDB, CosmosDB, Websockets, Hadoop, Apache Spark

---

Volunteer Work:

Robogals - Mentor   March 2022 - March 2023
- Successfully helped 2 driven students secure software development internships.