THOMAS NGUYEN

thom-nguyen.github.io
in/thom-nguyen
thom.nguyen@mail.utoronto.ca
647 608 1310

EDUCATION

UNIVERSITY OF TORONTO | Computer Engineering

CLASS OF 2021

Specialization in Software and Communications Engineering
Minor in Bioengineering , Certificate in Artificial Intelligence

CGPA: 3.55

University of Toronto Dean's List and Honours Standing
President's Scholars of Excellence Scholarship Recipient ($14 000)

EXPERIENCE

407 ETR CONCESSION COMPANY LTD | Agile Developer

SALESFORCE.COM DEVELOPER | MAY 2019 - DECEMBER 2019

Developed custom Lightning Web Components (LWCs) used to display customer trips featuring filtering functionality. Integrated said components with SAP database of over 1.5 million entries.

Scripted Salesforce.com automated tests in a variety of environments, including Provar, Askida CT, Selenium IDE, and Telerik Test Studio.

FULL STACK DEVELOPER | JANUARY 2020 - AUGUST 2020

Developed external web application to display contractor work orders.
Used AngularJS front end, Apache ServiceMix ESB layer using Camel routing, Java and C# microservices, and an SQL database of over 6 million entries.

Optimized performance by over 800% when viewing over 500 work orders.

Integrated with AWS (Cloudfront, S3, API Gateway, Cognito, Lambda).

TORONTO REHAB INSTITUTE (LYNDHURST) | Researcher

MAY 2018 - AUGUST 2018

Developed a coaching system for functional electrical stimulation (FES) rowing designed for patients with partial spinal cord injuries. Used Python and a National Instruments Data Acquisition Unit (NI DAQ) breakout box.

Publication: bit.ly/FesRowing

PROJECTS

ETR CHAT | AI Chat Bot | Python

Smart chat bot integrated with Facebook Messenger that notifies customers of the 407 ETR of account details and real time statistics. Bot would use AI to record customer's regular trips and inform user to leave earlier or later than usual depending on live highway status and weather. Implemented using Python and Facebook Messenger API.

SIMPLE MAPS | Geographical Information System (GIS) | C++

Developed a GIS to analyze spatial data of major cities featuring a UI with auto complete. Implemented Dijkstra and A* algorithms to compute optimal travel routes up to 700% faster than time limit. Implemented greedy, random 2-opt, multithreading to optimize travelling salesman solution by over 300% from initial implementation (placed 21st/110 teams).

SKILLS

Languages

Java
C, C#, C++
Python
SQL
Kotlin

HTML
CSS
Javascript (NodeJS, AngularJS)

Tools

Salesforce.com (Apex, SOQL)
AWS (Cloudfront, S3, API Gateway)
Apache (Maven, Camel, Servicemix)
Microsoft ASP .NET
Spring Tool Suite
Jenkins
OpenGL

COURSEWORK

In Progress

AI Fundamentals
Intro to Machine Learning
Intro to Databases
Computer Networks
Medical Imaging

Completed

Algorithms, Data Structures
Operating Systems
Probability & Applications
Computer Organization

ACTIVITIES

Iron Dragons Dragonboat

Club Crew World
Champions - Szeged, Hungary

8x Gold Medalist (University, U24)

Lifeguard & Lifesaving Instructor

Standard First Aid Instructor
Bronze Cross Instructor

Avid NBA Fan