THOMAS **NGUYEN**

🌐 thom-nguyen.github.io
✉ thomasnguyen55@hotmail.com
in linkedin.com/in/thom-nguyen
📞 (647) 608-1310
📍 Toronto, Ontario

Experience

Agile Software Developer (Full Stack, Salesforce)   May 2019 to August 2020
407 ETR Concession Company | Toronto, ON

- **Highway Assets Project**
  - Developed external web application that interfaces with Infor Enterprise Asset Management (EAM) software to manage contractor work orders.
  - Built front-end using AngularJS, middleware using Apache ServiceMix ESB layer with Camel routing, Java (Spring Boot) and C# (.NET 4.5) microservices.
  - Developed RESTful APIs and optimized performance by over 100% when viewing over 500 work orders.
  - Integrated with AWS (Cloudfront, S3, Cognito, API Gateway, Lambda).
- **Salesforce.com**
  - Developed custom Lightning Web Components (LWCs) for Salesforce.com Lightning Environment.
  - Developed a LWC to display customer trips gathered from SAP with client-side filtering and pagination.
  - 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.
- **407 ETR Website**
  - Performed optimizations on the JavaScript-based 407 ETR Toll Calculator; improved performance by 25%.
  - Maintained and performed regular enhancements for the 407 ETR website.

Summer Research Student   May 2018 to August 2018
Toronto Rehabilitation Institute – Lyndhurst Centre | Toronto, ON

- 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. Tests to determine accuracy performed using motion capture software.
- Publication: bit.ly/FesRowing

Projects

ForeSight – ML Medical Screening Android App   September 2020 – May 2021
Flutter, Python, PyTorch, Flask, AWS EC2, Docker

- 4th year capstone design project. Created an Android app that screens potential medical conditions to motivate users to seek medical attention when required.
- Achieved final testing accuracy of 86% by training on 5207 images of skin conditions, including nail fungus, basal cell carcinoma, and melanoma.
- Final machine learning model was exported via Docker to be hosted on AWS EC2, and accessed via a mobile app created using Flutter.
- GitHub: bit.ly/ece496codebase; PlayStore: bit.ly/ece496foresight

KLARR NET – Facial Emotion Recognition   September 2020 – December 2020
Python, PyTorch

- Designed, trained, tested an ML model to classify 7 emotions using a webcam.
- Detected faces via Viola Jones algorithm, trained on a dataset of >36'000 images.
- Achieved a final testing accuracy of 52.6% prior to using transfer learning.
- GitHub: bit.ly/klarrnet

Simple Maps – Geographical Information System   January 2018 to May 2018
C++

- Developed GIS/GUI to display city spatial data with text prediction & auto correct.
- Implemented: Dijkstra, A*, greedy, random 2-opt, multithreaded, simulated annealing.

Education

B.A.Sc. Computer Engineering
University of Toronto | Toronto, ON
Graduation with Honours
CGPA: 3.64
Minor: Bioengineering, AI/ML

Skills

Languages

- Java
- C, C++, C#
- Python
- JavaScript (Node, Angular)
- SQL
- Kotlin

Tools

- AWS (EC2, Cloudfront, Lambda)
- Apache (Maven, Camel, ServiceMix)
- Salesforce.com (Apex)
- Microsoft ASP.NET
- Spring
- Tensorflow, PyTorch
- Flask, Docker

Coursework

Algorithms & Data Structures
Computer Networks
Databases
Operating Systems
Machine Learning

Interests and Activities

Dragonboat

- Club Crew World Championships 2018 (Szeged, Hungary)
  - 8x Gold medalist
  - 2x Silver medalist
- Team Canada 2021 (Hopeful!)

Lifeguarding & Swim Instructor

- Standard First Aid Instructor
- Advanced Swim Instructor

Avid NBA Fan!