Digen Gill

647-467-7505 | gilldigen@gmail.com
www.github.com/digengill | www.digengill.me

EDUCATION

B.Eng., Spec. Hons. Software Engineering — Expected May 2022
York University, Toronto, On

TECHNICAL SKILLS

- Java, C#, JavaScript, C, Python, Eiffel, Tensorflow, and RISC-V & x86 assembly.
- Able to design, develop, deploy, and support RESTful services.
- Knowledge of the full software development life cycle.
- Experienced with Linux environment, Windows Office (Excel, Word), and MS Visual Studio .NET (VB, ASP).

PROJECTS & EXPERIENCE

Personal Website: www.digengill.me (for additional information and projects)

TalkBox Application

- Worked in a team to design and implement a Java application which aids the user to communicate.
- Developed a GUI-based Simulator which is the user interface of the application. Developed a Configuration application which allows a user to customize buttons.
- Utilized: Java, Github, JUnit Testing.

Handwriting Recognition Application

- Designed a Convolutional Recurrent Neural Network (CRNN) with CTC layer to recognize word images into digital text. Trained with the IAM Handwriting Database.
- Utilized: Python 3, Keras, TensorFlow 2.0, Numpy and OpenCV.

Operating System from Scratch

- Wrote an Operating system with x86 CPU registers. Working components include interrupts (IDT and IRQ's), paging, keyboard & screen drivers, and ports.
- Utilized: C, x86 assembly, shell scripting.

York University Rover Team — 2018-2019

- Worked in software development section of the team. Used the Robot Operating System (ROS) framework for the software development of the robot.

RELEVENT COURSEWORK

Software Design

- Knowledge of Design by Contract, Command-query separation principle, Single choice principle.
- Debugging, Unit Testing and Test-Driven Development.
- Design Patterns (Singleton, Iterator, Observer, Decorator, Visitor, Composite, Undo/Redo).

Object Oriented Programming

- Inheritance, polymorphism, static typing and dynamic binding.
- Abstraction, modulation, encapsulation, and information hiding.

Design and Analysis of Algorithms

- Knowledge of greedy methods, dynamic programming, and graph algorithms.
- Prune & Search, sorting and divide and conquer algorithms.
- Correctness proofs and lower bound techniques.

Other Coursework: Computer Organization, Software Requirements Engineering, Digital Logic Design, Operating System Fundamentals, Advanced Software Engineering.