

# Amar S. Gill

5186 Durie Road  
Mississauga, ON L5M 2C7  
(647) 222 4238  
[amar.s.gill@outlook.com](mailto:amar.s.gill@outlook.com)  
<https://amar-gill.now.sh>

## OBJECTIVE

Determined engineer with a background in delivering civil infrastructure projects - looking to apply development skills at a purpose driven organization.

## ENGINEERING EXPERIENCE

**Product Development Services for NaturaSeal Performance Coatings Ltd.**  
Morrison Hershfield Ltd., Burlington ON. (March 2017-June 2019)

Accelerated market adoption of a new entrant into the building membranes market by advising the manufacturer of the minimum necessary technical details and standardized testing reports to provide contractors and regulators for product approval on new construction sites. Drafted the required details and maintained an active file on behalf of client.

Developed a quality assurance programme with quality assurance forms to be filled out on site allowing the manufacturer to provide 10 and 20 year long warranties to building owners and operators.

**Domestic Water Piping Upgrade at Darlington Nuclear Generating Station**  
Ontario Power Generation, Oshawa ON. (June 2014-July 2015)

Planned and monitored the event free execution of a domestic water outage at Darlington Nuclear Generating Station to facilitate piping upgrades as part of their Nuclear Refurbishment Programme. Actively liaised with plant staff and contractor to maintain project schedule and remain within budget (\$3M).

## PERSONAL PROJECTS

*Hack Computer and Assembler [HDL, Assembly, Python]*

- Built a 16-bit general purpose computer from first principles
- Designed and coded every chip in the computer using hardware description language (e.g. CPU, ALU, RAM, ROM)
- Wrote an assembler in Python to translate assembly language programs as per the given machine language specification

*Leet Quiz [Flutter, Firebase, Firestore]*

- A quiz game where users answer questions on a variety of topics related to web and mobile development
- Implemented a Firestore NoSQL database to save user progress and Firebase authentication for Google and Apple accounts
- Available for download in Apple App Store and Google Play Store

*Site Reporting App [React, Flask, PostgreSQL, AWS S3]*

- A quality assurance platform for professionals that perform construction site visits
- Enabled AWS S3 bucket storage for user uploaded images

*Habit Wars [Flask, PostgreSQL, AWS S3, RabbitMQ, Heroku]*

- Gamified habit tracker web app with a competitive element
- Implemented chronological jobs using RabbitMQ to end active game rounds and start new rounds each week
- Voted 'Most Creative App' by audience at final project showcase

## EDUCATION

**Hebrew University of Jerusalem**

Nand to Tetris - part 1, Build a Modern Computer from First Principles - online via Coursera (2020)

**NEXT Academy, Kuala Lumpur MY**

Full Stack Web Development Bootcamp (2019)

**Harvard University, Cambridge MA**

CS50X Introduction to Computer Science and Computational Thinking - online via edX (2019)

**McMaster University, Hamilton ON**

Bachelor of Engineering, Civil - minor in Business Management (2016)

## TECHNICAL SKILLS

*JavaScript*

- React, Jest, Node, Express, JQuery, Typescript, Svelte, Sapper

*Python*

- Flask, Anaconda3, Pytorch, iPython, Jupyter Notebook, Spyder, Kivy

*Mobile Development*

- Flutter, Dart

*Low Level Programming*

- Hardware Description Language, Assembler design, C language programming

*Development Methodologies*

- Test Driven Development, Mobile Responsiveness, RESTful APIs, Agile, RabbitMQ message brokering

*Blockchain*

- Solidity smart contracts, Truffle Suite, Web3, Metamask

*Databases*

- PostgreSQL, MongoDB, Cloud Firestore

*Cloud Infrastructure*

- Heroku, AWS S3, Firebase, Google Maps Platform

*eCommerce*

- Braintree, SendGrid