

# Muhammad Gill

mhgill@uwaterloo.ca

<http://mugill.com>

<https://github.com/mhgill>

<https://www.linkedin.com/in/mhgill>

## EDUCATION

---

- **University of Waterloo** Waterloo, ON  
*Computer Engineering (Bachelors), Minor in Artificial Intelligence* *Sept. 2016 - Present*

## EXPERIENCE

---

- **Google** Montreal, QC  
*Software Developer* *Jan 2019 - April 2019*
  - Independently designed and implemented semisupervised learning pipeline for very large security datasets. Initial, unoptimized models realized accuracy and F1 scores above 98%
  - Wrote custom evaluation binary to score the semi-supervised and unsupervised models
  - Wrote a label propagation binary to label unlabelled data
  - Wrote a custom node transformation binary to generate new datasets
- **Blackberry** Waterloo, ON  
*Software Developer* *May - Aug 2018*
  - Developed deep learning model for syntax conversion from PL/SQL (oracle) to MySQL (100% precision)
  - Developed and optimized dynamic scripts to efficiently and securely migrate over 20% of company databases (schema, procedures and data) between different, incompatible platforms.
  - Customized, optimized an open source MySQL DB (MariaDB) to increase insert speed by 12%
  - Contributed greatly to many other confidential projects, currently being deployed to millions globally
- **Nielsen** Toronto, ON  
*Software Developer* *Sept 2017 - Jan 2018*
  - Developed generic Integration API for synchronous data flow between: Facebook Workplace, Active Directory, Salesforce, ADP, SharePoint and SQL database
  - Developed a dynamic script writer (DSW). DSW successfully wrote 50+ scripts that were used to process 20,000+ unique data files
  - Wrote 3 multi-purpose, dynamic web services for NoSQL infrastructure used by 10+ company apps
  - Developed data analysis and report tools; developed automation API for dynamic powerpoint generation – used by 2 departments, 50+ coworkers, saving 10 000's of hours per month

## SIDE PROJECTS

- *Software Developer* *Feb 2011 - Present*
  - Independently developed 3200+ elo chess engine (neural network). Trained using self generated dataset (90+ million unique chess positions)
  - Developed AI software for multiple games (1100+ downloads, \$22 000+ revenue)

## SKILLS

---

- **Operating Systems:** Linux (Debian/Ubuntu), macOS, Windows
- **Languages:** C++, Python, Java, SQL, Bash, Javascript
- **Technologies:** Tensorflow, scikit-learn, .NET, Node.js, ASP.NET, MATLAB, Hadoop, Express.js
- **Tools:** Git, XCode, Visual Studio, Eclipse, VS Code, Azure, MySQL, MariaDB, MongoDB, AWS