# Adham Zaki

#### **Education:**

# **University of Toronto** — BAS Industrial Engineering

**iii** 2015 - 2020

- PEY Co-op Program
- Dean's Honour List
- Minor in Artificial Intelligence

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## Skills:

 Python
 JavaScript
 Java
 HTML
 CSS
 Node
 React
 Git
 SQL
 Firebase
 PyTorch
 MATLAB
 TensorFlow

#### **Experience:**

# Procter & Gamble — Software Engineer

- Built an end-to-end development pipeline in Java that automatically detected software changes and published to server, reducing deployment time by 98%
- Developed new plugins in Java for an open-source analytics software (KNIME) that leveraged Google and Facebook APIs to automate recurring tasks, saving on average **150 hours per week** (30 users) and **reducing human error rate by 20**%

### Procter & Gamble — Web & Search Analyst

- Analyzed web traffic data in Google Analytics to assess performance of marketing strategies and suggest improvements, eliminating low-value advertising channels and **increasing advertisement interaction by 15**%
- Automated web page performance audits using JavaScript and collaborated with brand teams to implement recommendations, increasing
  overall website traffic by 20% and improving Google Search rankings by ~2

## University of Toronto — Full Stack Developer

- Developed 'SmartyPants' web application, a movie recommender system using JavaScript, Java, HTML, and CSS that suggests a curated list of films based a user's generated profile using specific metrics and a predictive algorithm
- Created a proprietary algorithm to suggest films with a 95% confidence interval
- Conducted end-user testing and implemented results to improve application

## **Projects:**

## The Federalist Papers — MATLAB

- Developed a support vector machine (SVM) in MATLAB that classified authorship of the disputed federalist papers using a non-probabilistic linear classifier
- Implemented two separate algorithms to solve the classification problem with < 0.2% error</li>
- Consolidated and visualized results including algorithm comparison, significant features, and hyperparameter optimization

#### SudokuSolver — Python

- · Built a Sudoku puzzle solving software in Python and published online using Google Cloud Functions as a backend
- · Represented puzzles as binary programming optimization problems and solved with the help of PuLP

#### eSports Betting — Python

- Developed a machine learning model in Python to predict the outcome of professional Counter-Strike games with 62% accuracy on unseen games
- Created an open-source betting assistant that combines the model prediction with current commercial betting odds to suggest the recommended bet

# **Leadership / Volunteering:**

## **HiSkule Mentorship**

Student-led initiative with the goal to encourage high school students to pursue STEM related careers by providing personal guidance and support

### **Go North Youth 2019**

Hands-on activities, demonstrations and workshops designed to ignite curiosity about STEM; partnered with Google and Actua

# Hack the North 2018

Attended Canada's biggest Hackathon as a sponsor representing Procter & Gamble with the goal of engaging students and assisting with recruitment

## Saturday Program

Non-profit tutoring and mentorship program that helps high school students from different faculties at the University of Toronto