

## Selected Projects

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- Music recommendation web application based on facial emotion detected with a deep learning model. (Java, SpringBoot, Maven, JavaScript, HTML, CSS, MongoDB)
- Implemented a blockchain cryptocurrency simulation system. (Java)
- Implemented a neural network and data mining models for ranking a search engine article popularity in information retrieval. (Python, Chainer, NumPy)
- Developed a card game including a graphical user interface. (Java, JavaFX)
- Machine Learning text comprehension deep learning model based on Google Bert. (Python, PyTorch)
- A robust geodemographic segmentation model for bank churn analysis. (Python, SQL, SSIS, gretl, Tableau)

## Education

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<b>Vancouver, CA</b>	<b>Simon Fraser University</b>	<b>Sep. 2018 - May 2020</b>
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- M.Sc. in Computer Science, GPA: A.
- Relevant Coursework: Machine Learning, Data Structures and Algorithms, Data Mining, Computer Vision, Multimedia Systems

<b>Cairo, Egypt</b>	<b>German University in Cairo</b>	<b>Sep. 2013 – May 2018</b>
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- B.Sc. in Information Engineering and Technology, GPA: A+.
- Relevant Coursework: Discrete Math, Probability & Statistics, Linear Algebra, Computer Programming, Computer Networks, Cloud Computing.

## Experience

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<b>Software Engineer, Researcher</b>	<b>Huawei-SFU Lab, Vancouver</b>	<b>Sep 2018 - May 2020</b>
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- Designed and implemented a computer vision algorithm for video reflection removal using motion cues to be applied in photography and self-driving cars.
- Submitted paper in ACM MMSys 2020.

<b>Software Engineer, Intern</b>	<b>Fraunhofer HHI, Berlin</b>	<b>March 2017 - Aug. 2017</b>
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- Built a link level simulator for a non-orthogonal multiple access scheme proposed for 5G networks.
- Received a very positive review on my work and skills, Recommendation: [goo.gl/DAA4f8](https://goo.gl/DAA4f8).

<b>Software Engineer, Intern</b>	<b>IoT Lab, GUC</b>	<b>June 2015 - Aug. 2015</b>
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- Implemented the navigation algorithm for an indoor navigation android application to help students navigate inside the university campus.

## Leadership and Awards

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- **Top 10 (out of 200 students)** in my undergraduate degree.
- **Top 20 (all over Egypt)** in Egyptian Mathematics high school.
- **Ranked first in Facebook Research machine learning challenge (MovieQA)** for highest performing model. link: [shorturl.at/eAOS6](https://shorturl.at/eAOS6), team name: ML-SFU.
- **Graduate teaching assistant** for the database course, Simon Fraser University.
- **Completed Foundations of Leadership** program by Student Engagement at SFU.
- **Best marketing team member** at Nawwar, an NGO for enhancing the learning experience for students.
- **Distinguished student award & full scholarship** throughout my undergraduate degree.
- **Public relations team member** at The Insider, first student-run media organization in Egypt.
- **Marketing team member** at AYB, a sustainable development NGO.

## Languages and Technologies

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- Proficient in Java, SQL, Git, Matlab; familiar with Python, Javascript, NumPy, Tableau, Spring Boot, Flask, Linux.