

SUMMARY

Computer Engineer bringing more than 6 years of experience in research and development. Known for high quality work and quickly mastering new technologies.

SKILLS

Programming Languages:	Python, R, C, C++, Java, SQL, HTML, CSS, Java Script
Frameworks and libraries:	Pandas, ggplot, matplotlib, sklearn, MongoDB, D3.js, TensorFlow, Hadoop
Concepts:	Real Time Systems, Machine Learning, Statistical Analysis, Data Wrangling, NoSQL
Other:	Git, Trilingual

DATA SCIENCE PORTFOLIO

A full list of my projects can be found at <http://www.emadtakla.com/projects.html>, please feel free to explore them.

Data Visualization: Explore World's Emissions <https://git.io/vXfmY>

- Designed a single page exploratory visualization to help viewers explore the world's greenhouse gas emissions
- Tools: HTML, Java Script and D3, Python, Jupyter Notebook

Machine Learning: Detect Fraud in Enron Data <https://git.io/vXflc>

- Applied machine learning to identify people involved in the famous fraud using their email and financial data
- Tools: Python, Numpy, Pandas, Sklearn, Scipy, NLTK, Jupyter Notebook, Matplotlib, Seaborn

Exploratory Data Analysis: Explore and Summarize Data <https://git.io/vXflG>

- Explored a wine dataset made of about 5000 bottles to determine what characteristics influence quality
- Tools: R, R-studio, ggplot

Data Wrangling: Wrangle OpenStreetMap Data <https://git.io/vXflm>

- Extracted, structured and cleaned OpenStreetMap data of the greater Montreal area
- Tools: Python, MongoDB, Pandas, Jupyter Notebook, PyCharm

Statistical Analysis: Investigate a Dataset <https://git.io/vXflT>

- Performed statistical analysis over the Titanic passengers dataset to determine factors of survival
- Tools: Python, Pandas, Jupyter Notebook, Scipy

Statistical Analysis: Video Games Ratings and Sales <http://www.emadtakla.com/projects.html#videogames>

- Performed Exploratory Data Analysis for the games on the VGChartz dataset (Two parts, published on Kaggle)
- Tools: Python, Pandas, Matplotlib, Jupyter Notebook

EDUCATION

Data Analyst Nanodegree (DAND) **2016**

Udacity – Online

This comprehensive certificate is project oriented with datasets that are both real and challenging. Its curriculum was co-created in collaboration with Facebook and MongoDB.

Embedded Systems Graduate Diploma **2007**

Information Technology Institute (iT), Guiza – EGYPT

BSc in Electrical and Computer Engineering

Modern Academy for Engineering and Technology – Cairo – EGYPT

2006

University of the District of Columbia (Dual Program with Modern Academy)

2005

PROFESSIONAL EXPERIENCE

Rockwell Automation

Jan 2014 – Oct 2015

Test Engineer

- Designed and executed validation and verification test cases
- Documented test results and furnished bug reports
- Peer reviewed my colleagues' work
- Compared and evaluated different test automation tools to find one that suits the team's needs
- Completed corporate training (Corporate ethics, industrial security, cyber security, ISTQB)

Renaissance for Technological Development

Jan 2010 – Jun 2013

Senior R&D Engineer

- Gathered requirements from internal customer
- Developed real-time applications for our target microcontroller in C\C++, including an embedded webserver over an RTOS
- Developed an Android application for the system in Java, which used SQLite database
- Performed unit, validation and verification tests

Valeo Interbranch Automotive Software (VIAS)

Oct 2007– Dec 2008

Embedded Software Developer

- Worked on a multi-site team, developing the next generation engine management system.
- Designed and executed validation and verification test cases
- Documented test results and furnished bug reports
- Peer reviewed my colleagues' work
- Performed team presentations and knowledge transfer

VOLUNTEER OR COMMUNITY EXPERIENCE

- Member of the Ordre des Ingénieurs du Quebec (OIQ), Junior Engineer
- Member of Mensa Canada
- Winner of Montreal WearHacks Hackathon, 2015 (Our project won two awards, including the first prize)
- Volunteering Experience in Mentoring (Kids Code Jeunesse and McGill Physics Hackathon)

REFERENCES AVAILABLE UPON REQUEST