

# DIOGO DUTRA

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## SUMMARY

Data Scientist with +10 years of international experience in Defense and Aerospace industries.

I have an entrepreneurial vein, lots of programming skills and a passion for product development.

## EDUCATION

**Deep Learning** 2019  
NanoDegree [Udacity](#)

**Machine Learning** 2018  
NanoDegree [Udacity](#)

**Data Science** 2017  
Course [edX](#)

**MBA** 2011-2012  
Entrepreneurship [FGV](#)

**Master** 2006-2007  
Aeronautics Engineering [ITA](#)

**Bachelor** 2001-2005  
Mechanics Engineering [IME](#)

## SKILLS

PyTorch, Scikit-learn, CNN, RNN, Python, C++, JIRA, Scrum, Git, Matlab, Simulink.

English, French, Portuguese.

## KEY ACCOMPLISHMENTS

- ✓ Created a Neural Network to **detect covert weapons** with radar
- ✓ Created a **quadcopter autopilot** using Reinforcement Learning
- ✓ **Increased missile flight lifespan** from 1 to 10 minutes by applying data fusion of INS, GPS and baroaltimeter with Kalman Filter
- ✓ **Predicted flight delays** with Deep Learning within margin of 15 min
- ✓ **Reduced 30% of \$5M stock** value of spare parts by applying data analysis on MRO warehouse ERP database

## WORK EXPERIENCE

### LEAD DATA SCIENTIST

*Canada*

[PatriotOne](#)

*Jul 2019 – on-going*

- Applied Convolution Neural Network (PyTorch) and Digital Signal Processing on radar signals. Development of an alert system capable of covertly screening moving individuals for on-body concealed weapons
- Got promoted in 3-months to mentor and lead a technical team; reported directly to VP of Engineering

### SENIOR CONSULTANT

*Brazil, Portugal*

[Natura](#), [Altran](#)

*Apr 2017 – Jul 2019*

- Embedded C++ code for automotive cluster: BMW and Continental
- Proofs-of-Concept for Industry 4.0 including Additive Manufacturing (3D printing), Augmented Reality and Artificial Intelligence

### CTO

*Brazil*

[goEPIK](#)

*Nov 2016 – Jun 2017*

- Co-founded the most attractive Brazilian startup in 2017 during my part-time by offering Augmented Reality app for maintenance

### SYSTEMS ENGINEER

*France*

[DCNS](#), [ICN](#)

*Apr 2013 – Mar 2017*

- Commissioning of submarine combat system (IVVQ, STW and FAT)

### PROJECT AND COMMERCIAL MANAGER

*Brazil*

[Mectron](#)

*Nov 2011 – Mar 2013*

- \$200K contract prospected and managed, ending with profit

### AEROSPACE ENGINEER

*Brazil, South Africa*

[Embraer](#), [Denel](#)

*Sep 2007 – Nov 2011*

- Guidance, Control, Navigation for missiles; simulation of jet fighter