SELIM AMROUNI

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EDUCATION

COLUMBIA UNIVERSITY: Master of Science in Operations Research (Expected) — *New York, NY*, *Sep 2017 – Dec 2018*
- Courses: Deep Learning, Reinforcement Learning (PhD class), Simulation, Machine Learning, Stochastic Models, Optimization Models, Data Mining, Data Analytics
- Teaching Assistant: B9122 (PhD) Computing for Business Research – Grading students exams, assisting during recitations, Managing one-to-one advising in a class of 49 students
- Course Assistant: IEOR 4720 Deep Learning – Preparing TensorFlow code examples for lectures

IFP SCHOOL: Master of Science in "Energy & Markets" (Dual degree with CentraleSupelec) — *Paris, FR*, *Sep 2015 – Jun 2016*
- Major in Economics applied to the Energy Sector

CENTRALESUPELEC: *Diplôme d'Ingénieur Supélec*, equivalent to Master of Science — *Paris, FR*, *Sep 2013 – Jun 2016*
- Major in Electrical Engineering and Applied Mathematics

PROFESSIONAL EXPERIENCE

COLUMBIA UNIVERSITY NEW YORK PRESBYTERIAN: Research Assistant – Tatonetti Lab — *New York, NY*, *Sep 2018 – Dec 2018*
- Working on investigating differentially private models to enable clinical data sharing
- Curating a set of models used in clinical research to assess performance of private models

NYU LANGONE HEALTH: Research Engineer (Part-time) — *New York, NY*, *Sep 2018 – Dec 2018*
- Pursuing the research to improve the accuracy of the current inpatient discharge prediction model
- Conducting research to optimize surgery scheduling and operating rooms utilization (Pilot Program)

NYU LANGONE HEALTH: Research Intern — *New York, NY*, *Jun 2018 – Aug 2018*
- Conducted research to build a capacity model to predict hospital bed availability for the next 72 hours
- Gathered the different databases from the hospital services, set-up the intra-day data acquisition process, built visualizations, engineered features and developed Graphic User Interface
- Delivered a product built in Python enabling the 10 members of the bed planning staff to manage over 30,000 inpatients per year spread among 600 bed units

ENGIE INEO, Energy & Systems: Deputy Project Manager – Oil and Gas department — *Paris, FR*, *Jul 2016 – Jul 2017*
- Budgeted the proposals during the tendering phases, average size: $300K – $12MM
- Performed web-scraping, API requests, data preprocessing and data analysis

ENGIE INEO, Energy & Systems: Lead Engineer Intern — *Paris, FR*, *Jun 2015 – Sep 2015*
- Designed the Polycom video conference architecture: Project Kaombo FPSOs (Total)

RESEARCH EXPERIENCE

Project: *"Deep Portfolio Management –Reinforcement Learning – Supervised by Prof. Shipra Agrawal"* — *New York, NY*, *Mar 2018 – May 2018*
- Implementing a Policy Gradient for portfolio management based on a paper (Jiang et al. 2017)
- Developing of the simulation environment using Python and the CNN using TensorFlow

Project: *"Capsules Network (CapsNet) – Deep Learning – Supervised by Prof. Ali Hirsa"* — *New York, NY*, *Feb 2018 – May 2018*
- Implementing CapsNet model using TensorFlow and Google Cloud Engine for GPU computing

Project: *"DirectT Lab – Transportation Analytics – Supervised by Prof. Sharon Di"* — *New York, NY*, *Jan 2018 – Apr 2018*
- Analyzed real-world data to forecast churning of drivers and to cluster their lifetime value
- Built of data pre-processing, analysis and computation for MDP model using GeoPandas

Project: *"Spookie Kaggle Competition, Identify Horror Authors from Writings – Data Analytics"* — *New York, NY*, *Nov 2017 – Jan 2018*
- Built of NLP features, dimensionality reduction, predictive models test and selection

SKILLS

COMPUTER	Python (Numpy, Pandas, Keras, Scikit-learn, TensorFlow, Flask, Tkinter), Gurobi, SQL, Matlab, LaTeX
LANGUAGES	French (native language), Spanish (conversational)
ACTIVITIES	Data-Science for fun side projects (Competitions, Real-time gas stations price monitoring tool development), Co-founded & Managed Supeduc: a student union for private tutoring