Jonathan Z. Amar

Data Scientist at Verily - PhD in Operations Research

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Professional, Research Experience and Projects

Feb 2021-Present Data Scientist, VERILY LIFE SCIENCES, Cambridge, MA.

Sep 2016-Jan 2021 Research Assistant, MIT, Cambridge, MA.

Topics: Analytics in Revenue Management, Machine Learning, Demand Estimation, Online Optimization. Selected Projects:

- o Demand Estimation and Personalized Assortments from Cross-Store Data for Beer Retailer
- Infection Modeling for COVID-19 Policy Alliance
- Distribution Free Algorithms for Network Revenue Mangement
- Dynamic Approach to Eliciting Customer Preferences
- o The Second-Price Knapsack Problem: Near-Optimal Real Time Bidding in Internet Advertisement
- Deep Reinforcement Learning for 2048

Advisor: Nikolaos Trichakis

Teaching Assistant: Operations Management (Fall 2017, Spring 2019, Summer 2019), MBA elective course and Executive program.

Jun 2018-Sep 2018 Data Scientist Intern, UBER, San Francisco, CA.

Marketplace Optimization, Dispatch

- Incorporate predictive signals into matching decisions
- Understand and approximate optimal decisions in an online setting

Mar 2016–Aug 2016 **Research Internship**, TECHNION, Haifa, Israel.

Robust optimization in Machine Learning techniques.

Advisor: Aaron Bental and Tamir Hazan

Sep 2015-Mar 2016 Research Project, SHORTOUCH, Paris, France.

Most relevant and shortest path design in network of friends.

Development Intern, INSENSI INC., New York. Jun 2015-Aug 2015

Created a dashboard to aggregate the large data generated by the IIy device (landline phone). Metrics visualisation.

Mar 2015-Jun 2015 Research Assistant, CMAP, ECOLE POLYTECHNIQUE, Paris, France.

> Estimating joint spectral radius and applications. Analysis of commutation systems, using path-complete graph theory to estimate the stability of switched dynamical systems. Advisor: Yassine Chitour.

Sep 2014-May 2015 Research Project, Polestar, Ecole Polytechnique, Paris, France.

> Indoor localization, optimization of supply chain. Used path theory and Markov Chain proprieties to optimize the university organization. Finalist for PSC AWARD at Polytechnique.

Sep 2014-Jun 2015 Physics Intrusctor, STANISLAS, Paris, France.

Provided weekly training courses for undergraduate students in math and physics.

Education

2016–2021 **PhD**, *MIT*, Cambridge, 5.0/5.

Operations Research. Relevant Courses: Linear, Dynamic, Robust Programming, and Machine Learning. Advanced Algorithms.

2013–2016 MS - BS, Ecole Polytechnique, Paris, France, 3.95/4.

One of the finest schools for sciences and engineering. Applied Mathematics, Operations Research, Optimization, Computer Science, Finance, Data Science, Statistics and Probabilities.

2011–2013 Preparatory Program , Lycée Massena, Nice, France, 3.99/4.

Two-year undergraduate program leading to nationwide entrance examinations to the French Grandes Ecoles for scientific studies. Analysis, Algebra, Fundamental Physics

Skills

Selected for Fulbright - Monahan scholarship

Languages French mothertongue English mothertongue Hebrew European C1 Spanish European C2

Programming Python (expert), Julia (expert), C++, SQL, R

Interests

Volunteering Summer experience in the biggest Filipino NGO GAWAD KALINGA, promoting social-entrepreneurship.

Other Basketball, Swimming, Windsurfing. Piano.