

C. Daniel Guetta

daniel@guetta.com ; *guetta@gsb.columbia.edu* – <http://daniel.guetta.com>

+1 857 413 8593

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Education

Columbia Business School, Columbia University **New York, NY**
Doctoral Program, Decision, Risk and Operations Division. 2010 – 2015

- Advisors: Awi Federgruen & Garud Iyengar.
- Thesis: *Applied Inventory Management: New Approaches to Age-Old Problems*
- Relevant coursework: optimization, probability & stochastic processes, data mining & machine learning, Bayesian methods. Applications to finance, service systems, inventory management.
- Deming Doctoral Research Fellowship, The W. Edwards Deming Center, 2013
- Doctoral Fellowship, Columbia Business School, 2010-2015

St John's College, University of Cambridge, Department of Mathematics **Cambridge, UK**
Master in Mathematics (Part III Mathematics). **Distinction** (highest possible honours). June 2010

- Courses: Time Series and Monte Carlo Inference, Actuarial Statistics, Mathematics of Operational Research, Statistical Theory, Applied Statistics, Biostatistics.
- Long essay on high dimensional variable selection.
- Horne Scholarship for academic performance, and Larmor Award (St John's highest honour for undergraduates) for "intellectual qualifications or moral conduct and practical activities".

Massachusetts Institute of Technology – MIT (year-abroad) **Cambridge, MA**
St John's College, University of Cambridge **Cambridge, UK**
B.A. in Mathematics and Physics. **5.0/5.0 GPA** and **1st Class Honours**. June 2009

- United Steel Companies Scholarship, JP Read Prize, Johnston Year Prize, Hockin Prize and College Prize for best academic performance in the year across all subjects in college.

Immanuel College **Bushey, Herts**
Secondary education June 2005

- 10 GCSEs at **Grade A***. 7 A-Levels at **Grade A**. 4 Advanced Extension Awards. A-Level grades in Computing and Biology were amongst top five in the UK. Appointed Head Boy.

Experience

Columbia Business School, Columbia Engineering **New York, NY**
Director of the Business Analytics Initiative (Business School, Engineering) Jan 2018 – ongoing
Associate Professor of Professional Practice (Business School) June 2020 – ongoing
Senior Lecturer in Discipline (Business School) June 2019 – May 2020
Lecturer in Discipline (Business School) Jan 2018 – May 2019

- Researching ways businesses can integrate analytics into their operations to drive value; authored award-winning case studies on the subject with a number of companies. Co-authored "Python for MBAs. Regularly present to senior stakeholders on implications for CBS's current and future analytics curriculum.
- Co-teaching "Analytics in Action," supervising eight concurrent, semester-long data science projects carried out by teams of MBA and engineering students with local companies. Projects range from predictive analytics to prescriptive analytics and visualization, and have led to changes in companies' operations and student hires.
- Developing XLKitLearn, an Excel-Python interface to expose the power of Python data science packages to non-coders through Excel. Created school's largest MBA analytics elective; course

enrolments grew fivefold in a year, attracted consistent outstanding student feedback, and was featured on the Bloomberg Businessweek podcast.

- Coordinating Business Analytics and AI curriculum, including development of innovative elective classes and leveraging existing classes within the school. Led the schools “Data Analytics Curriculum Pathway” committee.
- Founding organizer of “Workshopping the New MBA” symposium hosted by Columbia Business School.
- Three-times winner of the EMBA Commitment to Excellence Award, and winner of the Singhvi Prize for Excellence in Teaching.
- Sit on various advisory boards and consult with companies, helping with problems ranging from data integration and analysis, to the use of AI, to teaching workshop on these topics to employees.
- Researching application of Markov Decision Processes to the design of data-driven control systems with quantifiable optimality gaps for complex, capacity-constrained inventory fulfilment networks.

Palantir Technologies

New York, NY

Deployed Computational Engineer (data scientist/engagement manager)

Oct 2014 – Dec 2014

Oct 2015 – Dec 2017

- Worked on project teams focusing on modelling and data-integration problems faced by Palantir’s clients. Transitioned to owning projects with teams of up to 20 people; directed team’s day-to-day work and acted as main face of the company with clients to shape strategic direction of projects.
- Created entity-resolution platform integrating data from five distinct systems for defendant’s counsel in class-action lawsuit. Platform saved hundreds of man-hour of manual review. Output was approved by judge and plaintiff’s counsel as ground truth, and was included in court orders. First author of patent pending.
- Designed interactive dashboard for the analysis of early-stage clinical trial data as part of pilot engagement, leading to modified plans for later-stage trials, and signing of Palantir’s then-biggest pharma contract.
- Co-led 10-person team at major non-bank lender. Integrated data from multiple systems to empower business users with data to streamline loan issue process and build model to predict probability of loans closing. Project led to a restructuring of the company’s data science resources to place them closer to key business stakeholders.
- Took over team responsible for troubled AdaBoost-based credit decisioning system at one of the world’s largest banks. Created detailed remedial plan including strict QA and model-monitoring systems. Communicated problems and re-launch timeline to client, and oversaw successful re-launch of the model.
- Designed canonical demo of Palantir’s software used in meetings with prospective clients.

Amazon.com, Modelling & Optimization Team

Seattle, WA

Research Scientist Intern

May 2013 – August 2013

- Researched and developed diagnostic measures and visualization techniques for various parts of Amazon’s distributed supply chain. Developed prototype for a front-end GUI.

Citi

Canary Wharf, London, UK

Summer Analyst

Summer 2010, 10 weeks

- *Financial Strategy Group, Investment Banking Division*: re-designed FSG’s Monte-Carlo simulators for company Capital Structure and Liquidity.
- *Quantitative Investor Solutions, CitiFX*: Designed Risk Management model for client from scratch. Worked on portfolio selection using sparse learning methods to hedge equity risk using currencies.

Massachusetts Institute of Technology

Cambridge, MA

Graduate Teaching Assistant

2008/2009, year-long

- Coordinated teaching staff and administered 105-student MIT Mechanics class. Students obtained highest scores in MIT in final exam. Also developed and lectured integrated approach to reviewing mechanics. Lectures were consistently packed out.
- Most highly rated instructor in student evaluations, scoring 5.0/5.0.

California Institute of Technology
Summer Undergraduate Research Fellow

Pasadena, CA
 Summer 2008, 10 weeks

- Reviewed and synthesised large body of literature on biological algorithms, culminating in the design of a method for enzyme-free constant-temperature DNA quantisation.

Zlio S.A.
Managerial Assistant

Raanana, Israel & Paris, France
 Summer 2007, 8 weeks

- Acted as primary advisor to the CEO of dynamic e-commerce start-up. Assisted operations which increased number of clients by about 30% in a month. Designed algorithms still used by company.
- Surveyed data from three departments to compile working summary of company's database system. Subsequently saved tens of hours of staff time within company.

Teaching

- 2017: Engineering Demand Analytics, EMBA Business Analytics
- 2018: EMBA Business Analytics (3 sections), Engineering Business Analytics (2 sections), Engineering Demand & Supply Analytics, MBA Business Analytics 2, Analytics in Action (co-taught).
- 2019: EMBA Business Analytics, MBA Business Analytics 2 (5 sections), EMBA Business Analytics 2, Engineering Business Analytics 2 (2 sections), Engineering Demand & Supply Analytics (2 sections), Analytics in Action (co-taught).
- 2020: MBA Business Analytics 2 (5 sections), EMBA Business Analytics 2 (2 sections), EMBA Business Analytics (3 sections), Engineering Business Analytics (2 sections), Analytics in Action (co-taught), Analytics Advantage (created and coordinated, 2 sections).
- 2021: MBA Business Analytics 2 (3 sections), EMBA Business Analytics 2 (2 sections), Engineering Business Analytics (2 large sections, 1 regular section), MBA Enterprise AI Strategy, Analytics in Action (co-taught), Analytics Advantage (created and coordinated, 1 large section, 1 regular section).
- 2022: MBA Business Analytics 2 (3 sections), EMBA Business Analytics 2 (2 sections), Engineering Business Analytics (5 large sections, 1 regular section), Core MBA Operations Management (2 sections), Analytics in Action (co-taught), Analytics Advantage (created and coordinated, 2 large sections).
- 2023: MBA Business Analytics 2 (1 large section, 1 regular section), EMBA Business Analytics 2 (2 sections), Core MBA Operations Management (3 sections), EMBA Business Analytics (2 sections), Engineering Business Analytics (2 large sections), MBAXMS Core Stats and Business Analytics (1 section), Analytics in Action (co-taught), Analytics Advantage (created and coordinated, 2 large sections).
- Many of these classes were designed from scratch, others were heavily contributed to. Some of my classes were then scaled to other instructors. The Analytics Advantage was a course designed by various faculty in the DRO division and coordinated by me.
- Numerous executive education programs and guest lectures.
- Median instructor evaluation: 4.89/5

Publications, Software, Cases, and Online Classes

- D. Guetta, *The Cambridge Analytica Scandal: Psychographics, Facebook, and the 2016 US Elections*. Columbia CaseWorks, 2024.
- jobmarketgame.com – a game for teaching market design to MBAs.

- D. Guetta, *BinIt: Revolutionizing the Recycling Industry with Computer Vision, AI, and Deep Learning*. Columbia CaseWorks, 2024.
- D. Guetta, G. van Ryzin, Zhen Lian, *Enabling X-to-the-xth: the Operational Secret Behind Uber's Explosive Growth*. Columbia CaseWorks, 2023.
- D. Guetta, *Automating Bureaucracy with Python: the Case of the Springfield Bail Fund*. Columbia CaseWorks, 2022.
- C. Chan, D. Guetta, *Continuous Quality Monitoring via Data and Analytics at The Estée Lauder Companies*. Columbia CaseWorks, 2022.
- M. Griffel, D. Guetta, *Python for MBAs*. Columbia University Press, 2021.
- D. Guetta, *Autonomous Vehicles: the Technology Behind the Magic*. Columbia CaseWorks, 2021.
- C. Chan, D. Guetta, *Aroma Consumer Product Co.: Managing Capacity for a Growing Company*. Columbia CaseWorks, 2021.
- O. Besbes, C. Chan, D. Guetta, *At the Frontier of Retail in the 21st Century: Modern Fulfilment and the Case of Flexiveight*. Columbia CaseWork, 2021.
- cbs-python.com – a platform for teaching Python to MBAs
- D. Guetta, *Analytics in Fixed-Income Trading*. Columbia CaseWorks, 2021.
- D. Guetta, D. Wang, *Mastercard's Organizational Structure: The Making of a New AI Powerhouse*. Columbia CaseWorks, 2020.
- D. Guetta, R. Singal, J. Wolfe, *Analytics in American Football: A New Frontier*. Columbia CaseWorks, 2020.
- D. Guetta, *From Intuition to Data-Driven Analytics: The Case of Dig*. Columbia CaseWorks. 2019.
- D. Guetta, M. Griffel, *Python for Managers*. Emeritus/Columbia Business School online class. 2019.
- D. Guetta, *XLKitLearn: Data Science in Excel and Python*. xlkitlearn.com. 2019.
- D. Guetta, *An Introduction to AI for Text Mining: A Companion to the Evisort Case*. Columbia CaseWorks. 2019
- A. Federgruen, D. Guetta, G. Iyengar, *Two-Echelon Distribution Systems with Random Demands and Storage Constraints*. Naval Research Logistics. 2018
- D. Guetta, *Evisort: An AI-Powered Start-up Uses Text Mining to Become Google for Contracts*. Columbia CaseWorks. 2018
- M. Cohen, D. Guetta, K. Jiao, F. Provost, *Data-driven Investment Strategies for Peer-to-peer Lending: A Case Study for Teaching Data Science*. Big Data. 2018. (Finalist in the 2019 INFORMS case competition).
- M. Cohen, D. Guetta, W. Xiao, *Supply Chain Coordination and Contracts in the Sharing Economy – A Case Study at Cargo*. Columbia CaseWorks. 2018. (Winner in the 2018 INFORMS case competition).
- D. Guetta, *Demand and Supply Analytics*. EdX online class. 2018.

Outside Activities

Columbia Business School requires faculty members to disclose any activities that might present a real or apparent conflict of interest. I currently have no outside activities fitting this description.