

Andrea de Marco

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Relevant Experience **Solutions Engineer, TikTok, London, UK – Aug 2024 - Present.**

Scaled Regional Growth: Directed the **EUI regional strategy** for our top EUI Commerce clients to adopt and scale with **TikTok's hero automation performance ads product** (Smart+ Catalog). I drove a **+233% increase in regional product adoption** over a 10 month period.

Hyper-Growth Account Management: Spearheaded the performance strategy for top SEU Commerce, DCG and Luxury clients, **delivering +350% YoY revenue growth** and **generating record revenues** across the Commerce promotional season.

Strategic Revenue Generation: Co-architected a **bespoke "Source of Truth" SOT optimisation framework**, a framework that facilitates bespoke advertiser-centric solutions that enhances Commerce client's ROI and scale on TikTok. This framework **won a TikTok Ad Award**, enabled the **activation of 10+ new brands** and secured \$600k+ in incremental revenue in 6 month period.

Technical Product Innovation: **Delivered automated audits** featuring 31 unique diagnostic checks for signal health and campaign best practices, **enabling global teams to self-serve and resolve performance blockers**. Pioneered the development of an **internal Business Intelligence agent leveraging AI and Retrieval-Augmented Generation (RAG)**, automating intelligence collection and improving department-wide operational efficiency.

Software Engineering Manager, Stuart, London, UK – Sept 2019 - Aug 2024.

- **Led a Payments Engineering team** managing technical financial processes, overseeing systems processing €300M+ annually in pay-ins and pay-outs.

- **Delivered €300k+ projected annual profit increase** by managing a cross-functional project across Python, Ruby, and Flutter, launching an updated business model.

- **Architected and implemented six event-driven microservices** in Node.js/TypeScript and React, aligning with Stuart's financial and compliance objectives.

- **Standardized and simplified Stuart's pricing strategy**, reducing costs, improving client clarity, and driving company-wide operational efficiencies.

- **Introduced System Design interviews company-wide** and spearheaded initiatives to upskill engineers through 3+ international workshops, enhancing technical proficiency and collaboration.
- **Managed 3 remote and hybrid engineering teams with 12 engineers with low turnover.**
- **Founded and scaled Stuart's Automation Engineering team** from scratch to an 8-person function, embedding engineering best practices and ensuring a seamless transition into the Tech department.
- **6+ years as a Software Engineer and Technical Lead across diverse technology stacks including Python, Node.js/TypeScript, AWS, React, Ruby, Retool, and Flutter.**
- **5+ years of leadership experience**, managing remote and hybrid teams while promoting a culture of excellence in engineering.

Promoted to **Senior Software Engineer** on **July 2020**. Promoted to **Software Engineering Manager** on **July 2021**.

Kaggle NLP Challenge. Imperial Algothon at BlackRock – Oct 2018

First Place in the individual competition and Top 5 for best overall idea. Individual responsibilities included setting up the entire NLP based algorithm to compliment an LSTM model that predicted the price in a mixed stock over the next few months. The algorithm generated a sentiment score based on the text found in articles from Reuters.

Research Internship. Translational Medical Device Lab, Galway, Ireland – July 2018 - Sept 2018

- Focusing on microwave ablation to achieve localised and targeted lesions in the adrenocortical glands.
 - Investigating antenna performance and design, through simulations carried out in CST Studio Suite 2018.
 - Performing experimental trails on excised tissue (liver, muscle and fat).
 - Manufacturing and testing of antennas as medical catheters.
 - Investigating the differences between coaxial and triaxial antennas.
 - Understanding the trade offs in duration and power configurations.
- Academic paper presented at PIERS 2019 in Rome.

BI Developer. Eunoia, Malta – June 2017 - May 2018

- Established QA protocols and documentation procedures across all domains in the company.
- Worked on the front-end and back-end development of CFOUR - a financial consolidation tool. Code based on C#, Javascript and Kendo, facilitated through a Git repository.

- Supported this development through intricate documentation on the software itself, as well as its implementation.
- Implemented the CFOUR system on client's servers.
- Worked with massive databases using SQL and built analytics using Panorama Nector.

Education

Imperial College London – 2018-2019

M.Sc. Advanced Computational Methods for Aeronautics, Flow Management and Fluid-Solid Interaction - Distinction (Projected)

Dissertation: Characterisation of flows behind bluff bodies using Lyapunov Exponents and vectors.

Relevant Modules: CFD, Computational Linear Algebra, Compressible Flow, FEM, HPC, Separated Flows and Fluid-Structure Interaction, NS Equations and Turbulence Modelling, Control Theory, Flow Control, Structural Dynamics, Hydrodynamic Stability, Fluid Mechanics.

University of Malta – 2014-2018

B.Sc. (Hons.) Chemistry and Physics - First Class Honours

Dissertation: Sea surface chemical dispersion with the Grand Harbour.

Relevant Modules: Nuclear & Atomic Physics, Quantum Physics, Signal Processing, Remote Sensing, University level Calculus Mathematics and Vector Analysis, Fluid Mechanics, Science of the Ocean Floor, Optics, Solid State Physics, Statistical Mechanics, Thermodynamics, Electromagnetism; Organic, Inorganic, Analytical, Environmental and Physical Chemistry, Polymers, Molecular Modelling, Organic Spectroscopy.

St. Aloysius College Sixth Form – 2012-2014

A level: Physics (A), Pure Mathematics (B), Chemistry (B).

Intermediate level: English, Philosophy, SOK, Technical Drawing and Graphical Communication.

Additional Experience

- Four years of working in a fast-paced catering business - communication, team work and exposure to clients are all assets attributed from the job.
- Voluntary experience with a local teenage agency that included 3 months of 1-on-1 tutoring in Physics.
- Freelance projects for clients, working with HTML, CSS and Javascript.

Technical Skills

2+ years hands-on experience with AWS, holding Cloud Practitioner and seeking Solutions Architect Associate certification. 1+ years experience working with Retool. Experienced with Machine Learning tools to compliment various projects. Highly capable using computational tool such as ANSYS ICEM-CFD/FLUENT, CST Studio, COMSOL Multiphysics, Adobe Photoshop and Final Cut Pro.

Computing Skills Fluent in a variety of languages including Python, SQL, Javascript, NodeJS (Typescript), React, C/C++, FORTRAN, MATLAB, HTML, CSS and bash scripting. Proficient with Microsoft Office (ECDL certification).

Languages English - Native
 Maltese - Native
 German - B1 level.

Responsibilities **Masters Student Rep., Dep. of Aeronautics, Imperial College London**
- Liaised with academic staff to ensure feedback from an internationally diverse cohort.
- Ensured that the cohort was well represented by creating a Facebook group and coordinating all academic matters via mainstream sources.

Operations Director, ThinkSync, a Young Enterprise company (2013)
- Lead all operations related tasks within the Company.
- Coordinated with Managing Director and Sales Director to promote product sales.

Achievements -Formed part of the STEAM Experiments team that aimed to promote scientific learning at a primary level [www.steamexperiments.com].
-Obtained the Gold Award in the President's (Duke of Edinburgh) Award.
-Valid Driver's licence.

References available upon request