# Ivan Almer

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#### EDUCATION

**Bocconi University** Milan, Italy Master of Quantitative Finance and Risk Management Sep 2023 – present University of Zagreb, Faculty of Electrical Engineering and Computing Zagreb, Croatia Master of Computer Science Sep 2019 - Jul 2022 The Polytechnic University of Catalonia, Barcelona School of Informatics Barcelona, Spain Master of Innovation and Research (exchange semester) Sep 2020 – Jan 2021 University of Zagreb, Faculty of Electrical Engineering and Computing Zagreb, Croatia Bachelor of Computer Science Sep 2016 - Jul 2019

#### EXPERIENCE

## European Central Bank (ECB) - Market Operation Analysis

Frankfurt am Main, Germany Oct 2022 – Jun 2023

Market Operations Analyst

- Conducted precise and complex analyses related to Targeted longer-term refinancing operations (TLTROs)
- Ensured timely delivery of the TLTRO III recalibration dossier (as decided by the Governing Council of the ECB in October 2022) by automating the analyses using Python and SQL
- Contributed to the automation of the process that ensured timely delivery of the Minimum Reserves Remuneration dossier (as decided by the Governing Council of the ECB in July 2023)
- Created a dashboard that enabled complete monitoring of TLTRO III time-dependent applicable interest rates

*Trainee* Dec 2021 - Oct 2022

- Developed a script for the TLTRO III applicable interest rate calculation, which immensely sped up the existing process while also improving reliability
- Maintaining and improving internal market operations database
- Automating procedures and speeding up existing workflows

#### Agency04 - Mobile Development Team

Zagreb, Croatia

Junior iOS Developer

Jul 2018 - Feb 2021

- Ensured a delivery of a major project on a tight deadline while maintaining both code and application quality
- Contributed to multiple iOS applications

#### Projects

#### Option Pricing and Hedging under Jump-diffusion model | Financial Mathematics

Feb 2022 - Jun 2022

- Master thesis at the Faculty of Electrical Engineering and Computing
- Used Jump-diffusion process to model the price of the underlying asset
- Derived a function to price a European call option written on the underlying
- Mathematically showed that simulations can be used to price an option
- Examined the effects of the quadratic- and delta hedge to hedge the open position in an option

#### The Crane Problem | Trigonometry, Calculus, Python

Jun 2021

- Invented a problem to find a function of time that describes how to move the load along the arm of the crane such that it covers the shortest distance between the two arbitrary points
- Used Trigonometry and Calculus to develop a solution
- Used Python to test it and visualise it

### TECHNICAL SKILLS

**Tools**: Microsoft Office, Git, Tableau, LaTeX, Visual Studio **Programming Languages**: Python, SQL, R, Java, C/C++

Libraries: pandas, NumPy, Matplotlib

Languages: Croatian, English, German, Spanish