

# CURRICULUM VITAE: Patrick Altmeyer

## Personal Information

Date of birth: 28/03/1993  
Nationality: German

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## EDUCATION

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### Master Program in Data Science

Barcelona Graduate School of Economics

Recent projects: [Optimal subsampling applied to imbalanced learning](#) (9.0), [Directed Acyclical Graphs](#) (9.5), [EM algorithm in the context of a Latent Variable Model](#) (7.0)

Core modules: Machine Learning, Computational Machine Learning, Statistical Modelling and Inference

**Barcelona, Spain**

09/2020–07/2021

### Master Program in Economics and Finance – GPA 9.03/10 (top student)

Barcelona Graduate School of Economics

Dissertation: Option Pricing in the Heston Stochastic Volatility Model (10.0)

Core modules: Financial Econometrics (10.0), Pricing Financial Derivatives (9.3), Stochastic models and optimization (8.8)

**Barcelona, Spain**

09/2017–07/2018

### Master of Arts with Honours in Economics – First Class (among top three students)

University of Edinburgh

Dissertation: Can misguided monetary policy explain the European housing bubble? (82%)

Core modules: Economics of Financial Markets (86%), Advanced Mathematical Economics (79%), Behavioural Economics (71%)

**Edinburgh, UK**

09/2013–07/2017

## PROFESSIONAL EXPERIENCE

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### Economist

Bank of England

- Co-author of two staff working papers (upcoming) both of which involved high-dimensional data sets and drew heavily on my computational skills: PCA, k-means and hierarchical clustering, LASSO, quantile regression.
- Initiated and led the development of a large-scale, modularized and packaged R Shiny app now used for automated data access, transformation and visualisation in the Bank.
- Briefing work for policy committees including analysis, presentations and speaking notes for senior management and Markets' Deputy Governor Sir Dave Ramsden.

**London, UK**

09/2018–09/2020

### Postgraduate Intern

Bank of England

- Econometric analysis of transaction based panel data set with 200K time periods and several hundred entities in R (Markdown).
- Presentation of project results to senior staff in the Bank's Markets directorate.

**London, UK**

06/2017–08/2017

## PROGRAMMING & SOFTWARE

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Languages: Python, R, SQL, MATLAB, C++, Stata, bash/zsh, HTML, Markdown, CSS, LaTeX  
Technologies: git, Docker, Postgres, AWS, R Shiny  
Relevant software: R Studio, Atom, Datastream, Bloomberg Terminal, MS Office

## LANGUAGES

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German (Native), English (Fluent), Spanish (Proficient)

## TEACHING

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### Lead Trainer – R and git

Analytics Enablement Hub – Bank of England

**London, UK**  
09/2019–09/2020

- Introduced colleagues to R programming and git version control on voluntary basis through several organized training sessions that formed part of an ongoing project to enable staff in the fields of programming and data science.

### Teaching Assistant for Econometrics

School of Economics – University of Edinburgh

**London, UK**  
06/2017–08/2017

- Helped students to get familiarised with applications of econometrics in Stata during computing labs.
- Actively taught econometrics in tutorials jointly with senior teaching fellow.
- Supported students with issues during office hours.

## PUBLICATIONS

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### Modelling the demand for central bank reserves

2021 (TBC)

Bank of England Staff Working Paper

*An application of the Black-Littermann asset allocation model to estimate money market participants' demand for central bank reserves.*

### Investor positioning and the yield curve

2021 (TBC)

Bank of England Staff Working Paper

*Using uniquely granular trade repository data on short sterling futures we investigate the effect of investor positioning around economic surprises.*

### Option Pricing in the Heston Stochastic Volatility Model: An Empirical Evaluation

2018

[Selected for publication by BGSE](#)

*This paper evaluates the calibration method of the Heston model presented by Alòs, De Santiago, and Vives (2015).*

### Can misguided monetary policy explain the European housing bubble?

2017

[Selected for publication by BGSE](#)

*Using a standard SVAR framework, this dissertation analyses the role of house prices within the monetary transmission mechanism in Europe over the past decades.*

## CONFERENCES & WORKSHOPS

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### Money markets and central bank balance sheets

**Frankfurt, Germany**

[European Central Bank workshop](#)

11/11/2019

- Presented our draft staff working paper on modelling the demand for central bank reserves together with my co-author and supervisor Rafael Kinston.

## OUTREACH & AWARDS

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- 3<sup>rd</sup> Prize Winner of [Novartis Datathon](#). (2020)
- Full funding for MSc Data Science awarded jointly by Bank of England and BGSE. (2020)
- Class representative of MSc Data Science program. (2020)
- Barcelona GSE total tuition fee waiver for MSc Finance. Awarded based on academic merit. (2017)
- Edinburgh University School of Economics Joint Prize for the best performance in Economics. (2017)
- Held a [TEDx talk](#) about European Integration, Diversity and Societal Well-being. (2016)
- School of Economics Prize for academic excellence in Economics. (2014)