# Jakub Rybak

**Contact**

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## Experience

Jan 2020 - Current

**PhD Student** *Imperial College London*

- Interests: machine learning and high-dimensional statistics.

Oct 2019- Dec 2020

**Trading Analytics - Econometrician** *BP*

- ML and panel data techniques to estimate the impact of COVID on oil markets.
- Time series modelling of refinery activity and freight prices.
- Dimensionality reduction and high-dimensional techniques to formulate trading strategies.
- Programming in Python.

Oct 2017- Jun 2018

**Analyst, Equity Structuring and STS** *Goldman Sachs*

- Task automation using an in-house programming language.
- Analyses of strategy performance and preparation of materials outlining deal structures.

Oct 2016- Aug 2017

**Trainee** *European Central Bank*

- State-space modelling of time series for interpolation and forecasting.
- Programming in Matlab.

## Education

2018-2019

**MSc Statistics** (Distinction) *Imperial College London*

- Department of Mathematics Prize for excellence in Statistics.
- Development of a new class of covariance matrices.

  Rybak J., Battey H., "Sparsity induced by covariance transformation: some deterministic and probabilistic results", *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences.*

2015-2016

**MPhil Economic Research** *University of Cambridge*

- Faculty and college scholarships to cover tuition fees.
- Econometric analysis of capital flows.

2011-2015

**B.A. Economics** (Distinction) *Charles University in Prague*

- Ministry of Education award for the top graduates in the country, awarded to two undergraduate students.
- Prize for the best thesis on the topic of data and finance.

2012-2013

**Study stay** *University of Glasgow*

- John Aitchinson prize for the best performance in Mathematics.
- Lorimer Bursary for top performance in statistics.

## Skills

- Advanced: R, Python (numpy, pandas, scikit-learn, recently working also with TensorFlow).
- User knowledge: LaTeX, Microsoft Office, Matlab.