Am Campus 1, Klosterneuburg 3400, Austria, michellexyeo@gmail.com

Education IST Austria 2018 - Present

PhD Computer Science

Supervisor: Krzysztof Pietrzak

Research Interests: Blockchains, Machine Learning, Applied Cryptography, Game Theory

## University College London

2013 - 2014

MSc. with Distinction, Computational Statistics and Machine Learning

Supervisors: Tristan Fletcher and John Shawe-Taylor Thesis: Gaussian process prediction of fine wine prices

# University of Chicago

2009 - 2013

B.A. with Honours, Mathematical Statistics

GPA: 3.7/4.0

# Research Experience

## IST Austria

Vienna, Austria

2018 - present

Currently working on proving security (chain quality, common prefix) of cryptocurrencies using proofs of space.

# DeepMind

London, UK 2016 - 2018

Research on various reinforcement learning techniques with the StarCraft II learning environment. Research on planning for model-based reinforcement learning on 3D game environments. Created internal libraries to facilitate reinforcement learning research and improve experiment workflow as well as contributed code to open source projects like TensorFlow.

## Invinio Ltd., University College London

London, UK 2014

Predicted the prices of the Liv-Ex 100 wines using Gaussian Process Regression and Multi-Task Feature Learning, and compared results to the time series and linear regression models most commonly used in wine prediction. The existing Matlab implementation of a Multi-Task Feature Learning algorithm was also extended to incorporate kernels and to make it more stable.

#### University of Chicago

Chicago, IL 2013

Researched on the methods proposed in *Estimation of latent factors for high-dimensional time series* by Lam, Yao and Bathia as well as *Factor Modelling for High-dimensional Time Series* by Lam and Yao. Examined convergence properties of proposed estimators and gave a one-hour long presentation on convergence rates and proof.

# University of Chicago

Chicago, IL 2013

Analysed the idea of simplicity in A Theory of Inferred Causation by Judea Pearl and proposed a new syntatic notion of simplicity.

### Selected Publications

Oriol Vinyals, Timo Ewalds, Sergey Bartunov, Petko Georgiev, Alexander Sasha Vezhnevets, **Michelle Yeo**, Alireza Makhzani, Heinrich Kttler, John Agapiou, Julian Schrittwieser, John Quan, Stephen Gaffney, Stig Petersen, Karen Simonyan, Tom Schaul, Hado van Hasselt, David Silver, Timothy Lillicrap, Kevin Calderone, Paul Keet, Anthony Brunasso, David Lawrence, Anders Ekermo, Jacob Repp, Rodney Tsing (2017). *Starcraft II: A new challenge for reinforcement learning*. arXiv preprint arXiv:1708.04782.

M. Yeo, T. Fletcher, J. Shawe-Taylor (2015). *Machine Learning in Fine Wine Price Prediction*. Journal of Wine Economics.

Invited Talks	Royal Institution, London, UK From music to wine: applications of machine learning	2016
Workshops, conferences and schools	Eurocrypt 2020	2020
	Women in Theory 7th Women in Theory Workshop	2020
	BIU 10th BIU Winter School on Cryptography	2020
	TCC Theory of Crytography Conference 2019	2019
	TU Wien 1st International Summer School on Security & Privacy for Blockchains	2019
Teaching Experience	IST Austria Conducted 4 lectures and recitations on Brownian Motion and advanced probability	
	IST Austria Teaching Assistant for Mathematics Refresher	
	University of Chicago Teaching Assistant for STAT 22000 Statistical Methods and Applications.	
	Teaching Assistant for STAT 23400 Statistical Models and Method Teaching Assistant for MATH 15100/15200/15300: Calculus I/II/III	
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Honours and Awards	IST Austria Marie Curie Fellow	2018
	University of Chicago Dean's List: awarded to high achieving undergraduates	0-2013
	University of Chicago 2012 Research Experience for Undergraduates: undergraduate research grant in Mathematics	2-2013
	University of Chicago German Language Award: top scorer in German Language, Literature and Philosophy	2010
	Anglo-Chinese School (Independent) Scholastic Achievement Award: top scorer for International Baccalaureate Diploma	2007
Technical skills	Python	
Languages	English (Native), Mandarin (Advanced), German (Intermediate), French (Basic), Baha donesia (Basic), Serbian (Basic)	sa In-
Hobbies	Painting (oil), Philosophy, Yoga	
References	Krzysztof Pietrzak, krzysztof.pietrzak@ist.ac.at Oriol Vinyals, vinyals@google.com John Shawe-Taylor, J.Shawe-Taylor@cs.ucl.ac.uk	