Chun-Hei Lam
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Education

MSci Mathematics with a Year Abroad (MIT Exchange) Sept 2020 –
Massachusetts Institute of Technology
- Concentration: Dynamical Systems, Stochastic Analysis, Statistical Learning. See page 3 for course details.
- GPA 5.0/5.0 on first term

MSci Mathematics with a Year Abroad Oct 2018 –
Imperial College London
- See page 3 for course details.
- First Class in Year 1 and 2 with Dean's List

General Certificate of Education, A Level Sep 2016 – Jun 2018
HKCCCU Logos Academy
Modular Mathematics (A*A*A*), Physics (A), Chinese (A*)

Research Interests
- Dynamical System: Bifurcation and Chaotic behavior of a system.
- Theory of Statistical Learning: Inference on dynamic model, analysis on random matrices, non-asymptotic high-dimensional analysis.

Exposition Papers / Projects
They will be available in my website in due course.

- Classification of Financial Time Series (with H. Yu), 2021 (Final project of course *Statistical Machine Learning and Data Science*)
- Two Approach of Probabilistic Solver (with G. Guryev), 2021. (Final project of course *Bayesian Inference*)
- Empirical Distribution Theory (with S. Im), 2020. (Final project of course *Theory of Probability*)
- Computation of Empirical Measure, 2020. (Final project of course *Random Matrices*)
- Characterising Chaos in Pilot Wave System, 2020. (Final project of course *Non-Llinear Dynamics I: Chaos)*
- Enhanced Diffusion Process, 2020. (Continuation of 2nd year UROP, supervised by M. Coti-Zelati)
- A Retrospective Analysis of Governmental Interventions to COVID-19, 2020. (2nd year research project)
- Simple Application of Approximate Bayesian Computation (ABC) in Modelling Tumor Growth, 2019. (1st year research project)

Notes
They will be available in my website in due course.

- Theory of Classical Statistics II: Regression and Multivariate Analysis with demonstration in Julia, ongoing.

Related Experience

Peer Tutor – *Imperial College London* Oct 2020 – Apr 2021

- Hosting weekly tutorial for first year student, covering additional materials in lectures.

Other Experiences

Trainee – *Bright Wise Management Limited* Aug 2019

- Automation of company secretary work.
- Assisted auditing and accounting projects.

Subcommittee – *Imperial College Public Awareness and Social Service Society* Oct 2018 – Sept 2019

- Participant of *Oxford Model Legislative Council*
- Facilitated annual flagship event – *Famine 24*
- Member of Publication Team

Volunteer – *Annual Service Trip (Cambodia)* Aug 2018

- Facilitated in village development
- Coordinator of daily English Class in *Angkor Kids Center*

Languages

Cantonese (First Language)
Chinese (First Language)
English (Fluent)

Technical Skills

Computation: MATLAB, Python, R, STAN, Julia
Webpage Development: HTML, CSS, Javascript (including React.js and Typescript)
Typesetting: Microsoft Office, LaTeX
Design: Canvas and Figma

Hobbies

Post-1900s history
Systematic Theology
Classical Music
Trainspotting
Minecraft Architecture

Version: 2021, v6

Appendix: List of Attended / Ongoing Courses

Please see transcripts for details

Attended	Attended as Listener
Year 3 (Massachusetts Institute of Technology) #	
6.435 Bayesian Inference 15.077 Statistical Machine Learning and Data Science 18.103 Fourier Analysis: Theory and Application 18.338 Eigenvalues of Random Matrices 18.353 Non-Linear Dynamics: Chaos 18.656 Mathematical Statistics: an Non-asymptotic viewpoint 18.675 Theory of Probability 18.676 Stochastic Calculus 6.S087 Mathematical Methods for Multidimensional Statistics^	18.155 Differential Analysis I* 6.S191 Deep Learning^*
Year 2 (Imperial College) #	
Differential Equation Multivariate Calculus Introduction to Numerical Analysis Real Analysis Algebra II Complex Analysis Metric Spaces and Topology Probability and Statistics II Year 2 Research Project	Introduction to Partial Differential Equation* Measure and Integration* Probability Theory** Statistical Theory* Time Series Analysis* Introduction to Statistical Learning* Multivariate Analysis**
Year 1 (Imperial College)	
Foundation of Analysis Mechanics Mathematical Methods I/II Analysis I Geometry and Linear Algebra Algebra I Probability and Statistics I Intro to Computation Year 1 Research Project	Multivariate Calculus** Intro. to Numerical Analysis** Probability and Statistics II** Statistical Modelling I*

^ Obtained “Pass”, letter grades not available.

Academic performance is affected by current Covid-19 situation.

* Attended as a listener: there is no formal record for these modules.

** I have taken the modules again in next semester with gradings.