Zhang Naifu

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EDUCATION

Tsinghua University | Aug 2018 – Aug 2020 | Beijing, China
MSc Advanced Computing
- Courses: Machine Learning; Deep Learning; Algorithms; Computer Organisation; OS; Distributed Systems; Control Theory; Embedded Systems; Natural Language Processing; Multimedia Technologies; Discrete Maths; Combinatorics; Stochastic Processes
- Machine learning project that used Partial CNN to decensor pixelation mask on human face images
- Implemented MLP, CNN, and RNN without machine learning libraries, and word2vec with
- Implemented sharded distributed system based on raft protocol
- FPGA-based design and implementation of MIPS32 ISA processor

University of Cambridge, St Edmund's College | Oct 2013 – Jun 2016 | Cambridge, UK
BA (Hons) Economics
- Elective courses: Econometrics; Mathematics and Statistics; Economic Theory and Analysis
- Final year dissertation applies the theory of Markov-switching GARCH model on USDCNH option volatility
- St Edmund's Tutorial Prize 2014 & 2015

Hwa Chong Institution | Jan 2005 – Dec 2010 | Singapore

PROFESSIONAL EXPERIENCE

Barclays Investment Bank | Aug 2016 – Jul 2018 | London, UK
Macro Structuring
- Developed python and padla (in-house language) scripts to price, risk and backtest exotic, path-dependent option strategies
- Applied quantitative methods and conducted statistical and econometrical analysis to address business needs of clients, e.g. making inference and uncovering relationship between CMS spread and FX forward points
- Structured derivative strategies in the FX and Fixed Income asset classes as investment or hedging solutions for corporates, fintech, pension funds and asset managers

Goldman Sachs Group Inc. | Apr 2014 – Apr 2014 | London, UK
Spring Week Intern

Singapore Armed Forces | Feb 2011 – Dec 2012 | Singapore
Medic

RESEARCH

Tsinghua University | Jul 2019 – Aug 2020 | Beijing, China
MSc Student
- Undertaking research in efficient robotic control and learning methods based on Gaussian processes
- Researched on question-answering based on UR5 robotic arm through imitation learning: '*MOA: Answering the Question via Robotic Manipulation*' coauthored with Assoc. Prof. Liu Huaping (Tsinghua University) & Prof. Sun Fuchun (Tsinghua University)

Nanyang Technological University | Jun 2016 – Jul 2016 | Singapore
Research Assistant
- Used MLP neural network to predict run-time of large number of jobs on commercial VMs (Azure, EC2 and GCE)
- Implemented 0/1 Knapsack algorithm to optimize run-time under budget constraint

Economics Faculty, University of Cambridge | Mar 2015 – Apr 2015 | Cambridge, UK
Research Assistant
- Assisted Assoc. Prof. Jane Fruehwirth (University of North Carolina) and Dr. Sriya Iyer (University of Cambridge) in the paper '*Religion and Depression in Adolescence*', published on IZA & SSRN

SKILLS AND INTERESTS

Languages	Fluent in English and Mandarin; Comfortable in python and C
Sports	Active marathoner; St Edmund's College rower, Blades in Lent Bumps 2016
Music	Cello
Subscriptions	3Blue1Brown, Computerphile, TwoSetViolin, TechLead, Quanta magazine