



# Luca Mondada

Swiss, born on 24<sup>th</sup> January 1997

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**OXFORD  
COMPUTER SCIENCE**  
*DPhil in Computer Science*

**2 BSC DEGREES  
SIMULTANEOUSLY**  
*ETH Zürich (Physics & CompSci)*

**APPLIED & INDUSTRY  
EXPERIENCE**  
*Cambridge Quantum Computing*

## EDUCATION – MSc Univ. of Oxford / 2 BSc ETH Zürich

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- Jan. 2021 – **DPhil in Computer Science, University of Oxford**  
Quantum Computer Science. Circuit optimisation for NISQ devices.
- Oct. 2019 – Oct. 2020 **MSc. Maths and Foundations of Computer Science, University of Oxford**  
Focus on Category Theory and Quantum Computer Science. Dissertation in Quantum Circuit Simplification. Taking additional modules in Mandarin.  
Grade: Distinction.
- Sept. 2015 – Sept. 2018 **BSc. Physics & BSc. Computer Science, ETH Zürich**  
Completed two entirely separate degrees simultaneously.  
Written 2 Theses with 3 published papers on Quantum Computing and Information Theoretic properties of graph optimization algorithms.  
Grade average 5.54/6.0 (2018, Physics), 5.5/6.0 (2020, CompSci).
- Jan. 2018 – May 2018 **Indian Institute of Technology Bombay, Mumbai, India**  
Semester abroad studying Physics. Grade average: 9/10.
- Aug. 2012 – Jun. 2015 **Gymnase de La Cité, Lausanne, Switzerland**  
Matura. Elective subjects: Latin and Ancient Greek.  
Grade average 5.7/6.0.

## WORK EXPERIENCE

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- Oct. 2020 – **Cambridge Quantum Computing, Cambridge, UK**  
*Research Software Developer*  
Software Engineer on  $t|ket\rangle$ , the industry-leading quantum compiler.
- March 2019 – Sept. 2019 **swissnex China, Shanghai, China**  
*Junior Project Manager* in Innovation and Entrepreneurship  
Project Manager of the Swiss Pavilion at CES Asia 2019, the largest country pavilion, with dozens of stakeholders and a budget of over USD 100k.  
Received multiple Swiss delegations and organised events as well as multi-days innovation tours for various Swiss companies, start-ups and institutions.  
Liaison and event coordination between Swiss Foreign Department and local authorities for Swiss Presidential State Visit to Shanghai and Beijing.
- May 2018 – Nov. 2018 **UBS Switzerland, Zürich, Switzerland**  
*Intern Analyst* in Digital Strategy, Multichannel Management & Digitisation  
Shaping the cooperation between UBS and the international start-up ecosystem and creating proposals for management.  
Led discussions with European Fintech start-ups on cooperation opportunities. Represented UBS at numerous start-up investor events.  
Project manager role for proof of concepts and project inception.

## FURTHER COMMITMENTS

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Sept. 2016 – Dec. 2017	<b>Model United Nations (ZuMUN)</b> , Zürich, Switzerland <i>Head of Operations</i> ETH MUN, <i>Head of Department</i> ZuMUN Led the development of the IT infrastructure for automatised registration and payment processing in a conference handling over 400 registrations. Coordinated recruitment efforts with sponsors and stakeholders. Organised venues and receptions for 100+ people and reached 400 people on campus. Delegate to the Security Council at the National MUN, New York.
Sept. 2015 – Dec. 2017	<b>Swiss Olympiads in Informatics (SOI)</b> , Switzerland <i>Organiser</i> Supervised and taught workshops over several days for candidates. Main organizer of the SOI Day, the award ceremony and largest annual event.
Sept. 2016 – Feb. 2019	<b>Various Research Institutes, ETH Zürich</b> Theses with Prof. Renner and Prof. Buhmann. Research intern with Prof. Grewe in Neurosciences Lab and Teaching Assistant in Numerical Methods.
Sept. 2015 –	<b>Member of the Swiss Study Foundation</b> Attended workshops on (among others) Economy, Politics and Law, Rhetoric, Debating (Best Speaker Award). Scholarship recipient (see below).

## AWARDS AND SCHOLARSHIPS (selection)

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**Scholarships of the Swiss Study Foundation** Support for my studies at Oxford and Mumbai (2018, 2019).  
**Excellent Distinction** Competition Swiss Youth in Science. Selected for the European Finals (2015).  
**Ranked first nationally** Swiss Olympiads in Informatics (2015).  
**Excellence Award in Piano** Conservatoire de Lausanne (2015).  
**High School Awards** Award for best overall results. Award for best results in Ancient Greek (Vaud) (2015).

## LANGUAGES

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<b>French:</b> fluent	Mother tongue.
<b>German:</b> fluent	Swiss German origins. 1 year at Stiftsschule Einsiedeln and 3 years at ETH.
<b>English:</b> fluent	C2: Academic IELTS, Band Score 8.5/9.0, December 2018.
<b>Italian:</b> good	6 years of Italian school on weekends.
<b>Mandarin:</b> beginner	Level HSK 3. 6 months in Shanghai, China.

## TECHNICAL SKILLS

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<b>Programming languages</b>	Significant experience in C/C++, Python and Haskell, among others. Seasoned web developer (HTML/CSS, JS, PHP, Django, SQL etc.). Familiarity with ML libraries (TensorFlow, Theano) and Hadoop.
<b>Core Interest Areas</b>	Functional Programming, Databases, Machine and Statistical Learning, Algorithmics, Quantum Computing.

### Scientific Publications

Corinzia, L., Penna P., Mondada L., Buhmann J. M. (2019). Exact Recovery for a Family of Community-Detection Generative Models. *IEEE International Symposium on Information Theory, ISIT 2019*, 415 – 419.  
Iten, R., Reardon-Smith, O., Mondada, L., Redmond, E., Kohli, R. S., & Colbeck, R. (2019). Introduction to universalqcompiler. *arXiv preprint arXiv:1904.01072*.  
Mondada, L., Karim, M. E., Mondada, F. (2016), Electroencephalography as implicit communication channel for proximal interaction between humans and robot swarms. *Swarm Intelligence*, 10(4), 247 – 265.

## EXTRACURRICULAR ACTIVITIES

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Besides a strong interest for global affairs, world finance and the economy, I take pleasure in writing and photography and have published articles on several platforms. For many years, I was also a dedicated violinist, pianist and singer and was active in choirs, orchestras and opera performances. I am an avid Financial Times reader and I enjoy running regularly and skiing in the winter.

**REFERENCES:** on request.