

PhD Position in Computer Science

The Hong Kong University of Science and Technology

The Department of Computer Science & Engineering of The Hong Kong University of Science and Technology is inviting applications from motivated, bright, and hard-working students that wish to pursue a **PhD in Computer Science in the area of Cryptography** under the supervision of Dr. Dimitrios Papadopoulos. Students will perform research in cutting-edge areas in cryptography, such as zero-knowledge proofs, oblivious algorithms, trusted-hardware-assisted cryptography, verifiable computation, vector commitments, searchable encryption, cryptographic blockchain protocols, etc. The specific topic will be determined based on the common interests of the student and the supervisor.

Applicant's profile

- BSc/MSc/Diploma degree in Computer Science or related field.
- **Excellent programming** skills, preferably in C/C++.
- Very good **understanding of theoretical CS fundamentals**: asymptotic analysis, data structures, proofs of algorithms, etc.
- Some familiarity with basic cryptographic tools: hashing, encryption, commitments, etc.
- Strong enthusiasm about research.

Ideal candidates have prior knowledge in implementing cryptographic primitives or a relevant project. Solid background in theoretical computer science (complexity analysis, reduction proofs, etc.), or experience in programming for trusted-hardware environments (Intel SGX, ARM TrustZone, etc.) is also a big plus.

The PhD program duration is 4 years and successful candidates are expected to publish their work at top-tier Computer Science conferences and journals. Applicants may also be considered for the MPhil+PhD program that has a duration of 5 years in total with successful candidates being awarded both degrees.

Work environment

The HKUST Computer Science & Engineering Department ranks among the very best globally and our faculty are recognized internationally. The department was ranked 17th in the world in Computer Science for 2020 by THE World University Rankings. Our graduates typically produce research output of the highest quality and consistently staff world-class institutions. The Cryptography lab offers a creative work environment that is ideal for excellent research.

Funding

HKUST offers guaranteed funding for the entire program duration with competitive stipends. Strong candidates will be supported to apply for the highly prestigious Hong Kong PhD Fellowship Scheme.

How to apply

Applicants should submit: **(1)** a detailed CV (including expected or actual degree class), **(2)** a short personal and research statement explaining your reasons for applying for the position, your relevant experience and the research topic in which you would like to pursue a PhD (no more than 2 pages), and **(3)** contact details of two academic referees who can be contacted prior to interview. Send the above via e-mail to Dr. Dimitrios Papadopoulos (*dipapado (at) cse.ust.hk*).

The position is available immediately and until successfully filled.