

Secure and Private AI (<https://classroom.udacity.com/courses/ud185>)

About this Course

What's the earliest we can predict cancer survival rates, and what schools do the best job of educating children? You can only answer these questions with very rare access to private and personal data, but access to this personal data requires that you master methods for the principled protection of user privacy. While not all privacy use cases have been solved, the last few years have seen great strides in privacy-preserving technologies.

This free course will introduce you to three cutting-edge technologies for privacy-preserving AI:

- Federated Learning
- Differential Privacy
- Encrypted Computation.

You will learn how to use the newest privacy-preserving technologies, such as OpenMined's PySyft. PySyft extends Deep Learning tools—such as PyTorch—with the cryptographic and distributed technologies necessary to **safely and securely train AI models on distributed private data.**

We encourage you to enter the **Secure and Private AI Scholarship Challenge from Facebook** to both take the course and have a chance to win a scholarship for the Deep Learning or Computer Vision Nanodegree programs.

<https://www.openmined.org/>

<https://iamtrask.github.io/2017/03/17/safe-ai/>

<https://medium.com/udacity/introducing-udacitys-secure-private-ai-course-fe20bfa3b0ff>



UNIVERSITY OF
MARYLAND

08/02/2020

Peter Lorenz

has successfully completed

Hardware Security

an online non-credit course authorized by University of Maryland, College Park and
offered through Coursera

Gang Qu, Professor
Director, Maryland Embedded Systems and Hardware Security Lab
Electrical and Computer Engineering Department
University of Maryland, College Park

COURSE
CERTIFICATE



Verify at coursera.org/verify/SGGK4VHG9VNB

Coursera has confirmed the identity of this individual and
their participation in the course.



08/03/2020

Peter Lorenz

has successfully completed

Cryptography

an online non-credit course authorized by University of Maryland, College Park and
offered through Coursera

Jonathan Katz, PhD
Professor
Department of Computer Science
University of Maryland

**COURSE
CERTIFICATE**



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their participation in the course.



08/02/2020

Peter Lorenz

has successfully completed

Usable Security

an online non-credit course authorized by University of Maryland, College Park and
offered through Coursera

Jennifer Golbeck, Ph.D.
College of Information Studies
University of Maryland

**COURSE
CERTIFICATE**



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UNIVERSITY OF
MARYLAND

08/03/2020

Peter Lorenz

has successfully completed

Software Security

an online non-credit course authorized by University of Maryland, College Park and
offered through Coursera

Professor Michael Hicks
Department of Computer Science
and the Maryland Cybersecurity Center (MC2)
University of Maryland, College Park

COURSE
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Stanford | ONLINE

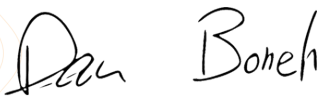
05/12/2020

Peter Lorenz

has successfully completed

Cryptography I

an online non-credit course authorized by Stanford University and offered through Coursera



Dan Boneh
Professor of Computer Science
Stanford University

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COURSE
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4 Courses

Cryptography and Information Theory

Symmetric Cryptography

Asymmetric Cryptography and Key Management

Cryptographic Hash and Integrity Protection



05/18/2020

Peter Lorenz

has successfully completed the online, non-credit Specialization

Applied Cryptography

This specialization is intended for the learners interested in or already pursuing a career in computer security or other cybersecurity-related fields. Through four courses, the learners will cover the security of information systems, information entropy, classical cryptographic algorithms, symmetric cryptography, asymmetric/public-key cryptography, hash functions, message authentication codes, digital signatures, key management and distribution, and other fundamental cryptographic primitives and protocols.

A-25

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

Verify this certificate at:
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4 Courses

Introduction to Self-Driving Cars

State Estimation and
Localization for Self-Driving
Cars

Visual Perception for Self-
Driving Cars

Motion Planning for Self-Driving
Cars



05/09/2020

Peter Lorenz

has successfully completed the online, non-credit Specialization

Self-Driving Cars

This Specialization gives you a comprehensive understanding of state-of-the-art engineering practices used in the self-driving car industry. By interacting with real data sets from an autonomous vehicle (AV), you'll implement methods for static and dynamic object detection, localization and mapping, behaviour and maneuver planning, and vehicle control — all through hands-on projects using the open source simulator CARLA. You'll learn from a highly realistic driving environment that features 3D pedestrian modeling and environmental conditions. When you complete the Specialization successfully, you'll be able to build your own self-driving software stack and be ready to apply for jobs in the autonomous vehicle industry.

Associate Professor,
Aerospace Studies
Director, Toronto
Robotics and Artificial
Intelligence Laboratory

Assistant Professor,
Aerospace Studies
Director, Space &
Terrestrial Autonomous
Robotic Systems
Laboratory

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Verify this certificate at:
coursera.org/verify/specialization/QYGZW92M6YGM

Result card for: Peter Lorenz
Organisation name: Graz University of Technology
Test title: Oxford Online Placement Test
Date test taken: 20/02/2018

Results:

Oxford Online Placement Test

Score	Time taken	CEF
107	00:52	C2

Use of English:

Score	Time taken	Use of English
96	00:15	C1

Listening:

Score	Time taken	Listening
119	00:37	C2+

Herrn
Peter Lorenz BSc
Moserhofgasse 20/18
8010 Graz

Vizerektor für Lehre

Assoc.Prof. Dipl.-Ing. Dr.techn.
Denis Helic, Studiendekan

Fakultät für Informatik u.
Biomediz. Technik
Inffeldgasse 10/II
8010 Graz

Matrikelnummer: 01114658
Studienkennzahl: F 066 921
Studienbezeichnung: Masterstudium; Computer Science
Geschäftszahl:

Sachbearbeiterin:
Mag. Karin Kirchsteiger
Tel.: +43(0)316 873 4051
dekanat.informatik@tugraz.at

Auslandsaufenthalt: von 09.07.2018
bis 17.08.2018
Gasthochschule: USA Wayne State University
Datum: 07.05.2018

Vorausbescheid

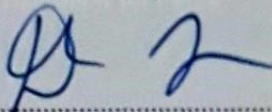
Auf Grund Ihres Ansuchens wird die Gleichwertigkeit der zu erbringenden Studienleistung/en der angeführten Aufstellung gemäß § 78 (5) Universitäts-gesetz 2002, BGBl. I Nr. 120/2002, für das Studium "Masterstudium Computer Science" an der Technischen Universität Graz festgestellt.

Reihenfolge	TU Graz Beurteilung	SSt	ECTS Credits	Fremd- Beurteilung
Position 1				
Image reconstruction algorithms in photoacoustic tomography ; SE 2017/18		6,00	10,00	
wird als gleichwertig festgestellt mit				
503737 Diskrete Stochastik und Informationstheorie (Informatik); VO S 2017/18		3,00	4,50	
SES208UF Signalverarbeitung; VO S 2017/18		2,00	3,00	
		SSt: 5	ECTS-Credits: 7,5	

RECHTSMITTELBELEHRUNG

Gegen diesen Bescheid können Sie gemäß § 46 Abs.2 Universitätsgesetz 2002 (UG) in Verbindung mit dem Verwaltungsgerichtsverfahrensgesetz, BGBl. I Nr. 33/2013 (VwGVG) binnen vier Wochen nach Zustellung das Rechtsmittel der Beschwerde erheben. Die Beschwerde ist schriftlich oder in jeder anderen technisch möglichen Weise beim Studienrechtlichen Organ im Wege über die OE Studienservice und Prüfungsangelegenheiten der Technischen Universität Graz einzubringen und hat die inhaltlichen Vorgaben gemäß § 9 VwGVG zu erfüllen.

Für den Vizerektor für Lehre:



Assoc.Prof. Dipl.-Ing. Dr.techn. Denis Helic,
Studiendekan

The statistic shows up my programming skills in summer term 2016 in the course "Operating Systems" at the IAIK – Institute of Applied Information Processing and Communications. The programming languages are mainly C, C++ and Assembler.



PBSOLUTION

55 East Tianlin road,
Xu Hui district, Shanghai

3rd February, 2015

Peter is a highly-motivated software engineer who has proficient developing and designing skills, all this proving extremely beneficial to our company when developing our new website in a very professional way and catalogs designing. Peter is always took a calm, creative and logical to problem-solving, which was particularly useful to give our marketing strategies and organization business parties a western touch. It was a great pleasure to work with Peter in PBSOLUTION for 2 month internship and I wish his continued success with his career.

Will Fan,
Marketing Manager

