# Chenxiang ZHANG 

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## Education

## Ph.D. in Machine Learning

University of Luxembourg

Oct 2023 - Present
Esch-sur-Alzette, Luxembourg

- Advisor: Jun Pang, Sjouke Mauw
- Research topics: robustness, privacy, and distribution shifts
- Teaching activities: preparation and grading for exercises and exams


## M.Sc. in Computer Science and Artificial Intelligence <br> Sep 2020 - May 2023 <br> University of Pisa <br> Pisa, Italy

- Grade: $110 / 110$ cum laude (highest grade)
- Thesis: "Training, Architecture, and Prior for Deterministic Uncertainty Methods"
- Selected courses: machine learning, pattern recognition, natural language processing, distributed systems, information retrieval, algorithm engineering


## B.Sc. in Computer Science

Sep 2017-Jun 2020
University of Pisa
Pisa, Italy

- Grade: $91 / 110$
- Thesis: "Technical Smart Compose"
- Selected courses: calculus, linear algebra, discrete math, probability theory, algorithms, and data structure, advanced programming, operating systems

High School Diploma

Sep 2012-Jun 2017
Istituto Tecnico Industriale Statale E. Fermi
Lucca, Italy

## Experience

## Software Engineer Intern

Oct 2022 - Apr 2023
Amazon Music Machine Learning
Berlin, Germany

- Developed a tool using ML features to improve the ads targeting of customers
- Measured the success impact by running an $\mathrm{A} / \mathrm{B}$ test on millions of users


## Research Visitor

Feb 2022 - Aug 2023
Data Analytics and Machine Learning Group, Technical University of Munich Munich, Germany

- Studied the literature of uncertainty estimation and distribution shift generalization
- Provided practical guidelines on how to train the family of deterministic uncertainty methods
- Published a paper at ICLR 2023 Workshop on Trustworthy ML


## Research Assistant

Jan 2021 - Dec 2021
Knowledge Discovery and Data Mining Group, University of Pisa
Pisa, Italy

- Developed an ML pipeline for Ischemic Heart Disease using real-world clinical data
- Provided ML interpretable results using clustering and feature importance
- Submitted a paper at International Journal of Cardiology


## Publications

Charpentier, B., Zhang, C., \& Günnemann, S. (2023). Training, Architecture, and Prior for Deterministic Uncertainty Methods. ICLR 2023 Workshop on Pitfalls of limited data and computation for Trustworthy ML.

Pingitore, A., Zhang, C., Vassalle, C., Ferragina, P., Landi, P., Mastorci, F., Sicaria, R., Tommasi, A., Zavattari, C., Prencipe, G., \& Sîrbu, A. (2024). Machine learning to identify a composite indicator to predict cardiac death in ischemic heart disease. International Journal of Cardiology, 131981.

## Honors \& Awards

Tuscany regional council for study scholarship (tuition, housing, €8.000 award) 2017-2022
Innovation in rehabilitation enhancement and telemonitoring ( $€ 9.600$ award) 2021
Erasmus program and youth support scholarship ( $€ 5.400$ award) 2021
Erasmus program and youth support scholarship (€4.500 award) 2019
Participant for the regional Olympiad in Informatics 2015
Participant for the national competition in Math "Giochi di Archimede" 2013

## Projects

## LoopAI Competition | $\boldsymbol{O}$

- Developed a data and ML pipeline to predict facial expressions using computer vision
- Recognized as one of the top performers and received a job offer


## Game Development <br> 2017-2019

- Oo Destiny of Khando - responsible for the full development (30k downloads)
- Oo Fall Royale - responsible for the design and art ( 100 k downloads)


## Miscellaneous

Programming Python, Java, Kotlin, C++, MySQL
Software Git, ATEX, Linux, PyTorch, Lightning, Slurm, Unity3D
Languages Italian (native), English (professional), Chinese (intermediate)
Hobbies Walking, hiking, climbing, yoga, running, reading, and cooking

