

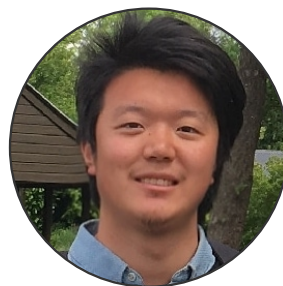
Zilong Zhao

POSTDOCTORAL RESEARCHER AT TU DELFT

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Education

GIPSA-lab (Université Grenoble Alpes)

PHD STUDENT IN COMPUTER SCIENCE AND AUTOMATION

Université Grenoble Alpes

INTERNATIONAL SUMMER SCHOOL ON AUTONOMIC CONTROL

University of São Paulo

THE SÃO PAULO SCHOOL OF ADVANCED SCIENCE ON LEARNING FROM DATA

Polytech Grenoble (Université Grenoble Alpes)

M.S. IN COMPUTER NETWORK AND MULTIMEDIA COMMUNICATION

Dalian University of Technology (Department of Software Engineering)

B.S. IN NETWORK SECURITY

Grenoble, France

2017 - 2020

Grenoble, France

Sept. 2019

Brasil, São Paulo, Brazil

Aug. 2019

Grenoble, France

2014 - 2017

Dalian, China

2010 - 2014

Publications and Submissions

- Zilong Zhao**, Robert Birke, Rui Han, Bogdan Robu, Sara Bouchenak, Sonia Ben Mokhtar, Lydia Y. Chen. Enhancing Robustness of On-line Learning Models on Highly Noisy Data. IEEE Transactions on Dependable and Secure Computing (Accepted). 2021.
- Kelly L. Sloane, Joel A. Mefford, **Zilong Zhao**, Man Xu, Guifeng Zhou, Rachel Mace, Amy E Wright, Shenly Glenn. The validation of a mobile sensor-based neurobehavioral assessment with machine learning analytics. Journal of Cognitive and Behavioral Neurology (Accepted). 2021.
- Zilong Zhao**, Sophie Cerf, Bogdan Robu, Nicolas Marchand. Event-Based Control for Online Training of Neural Networks. IEEE Control Systems Letters (L-CSS), volume. 4, pages 773-778, 2020.
- Shannon M. Sheppard, Jennifer Shea, Rachel Fabian, **Zilong Zhao**, Alexandra Zezinka Durfee, Erin L. Meier, Sona Patel, Shenly Glenn, Argye E. Hillis. Prosodic Acoustic Features in Mild Cognitive Impairment and Primary Progressive Aphasia. 58th Annual Academy of Aphasia Meeting (Poster). 2020
- Jiyue Huang, Rania Talbi, **Zilong Zhao**, Sara Boucchenak, Lydia Y. Chen, and Stefanie Roos. An Exploratory Analysis on Users' Contributions in Federated Learning. IEEE International Conference on Trust, Privacy and Security in Intelligent Systems and Applications (TPS-ISA), page 20-29, Atlanta, GA, USA. 2020.
- Zilong Zhao**, Sophie Cerf, Bogdan Robu, Nicolas Marchand. Feedback Control for Online Training of Neural Networks. CCTA 2019 - 3rd IEEE Conference on Control Technology and Applications, page 136-141, Hong Kong, China. Aug 2019.
- Zilong Zhao**, Sophie Cerf, Robert Birke, Bogdan Robu, Sara Bouchenak, Sonia Ben Mokhtar, Lydia Y. Chen. Robust Anomaly Detection on Unreliable Data. 49th IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2019), page 630-637, Portland, Oregon, United States. Jun 2019.
- Amirmasoud Ghiassi, Taraneh Younesian, **Zilong Zhao**, Robert Birke, Valerio Schiavoni, Lydia Y. Chen. Robust (Deep) Learning Framework Against Dirty Labels and Beyond. IEEE International Conference on Trust, Privacy and Security in Intelligent Systems and Applications, page 236-244, Los Angeles, California, United States. Dec 2019.
- Zilong Zhao**, Louis Job, Luc Dugard, Bogdan Robu. Modelling and Dynamic Analysis of the Domestic Demand Influence on the Economic Growth of China. Conference on International Development Economics, CERDI, Clermont-Ferrand, France. Nov 2018.
- Zilong Zhao**, Aditya Kumar, Robert Birke, Lydia Chen. CTAB-GAN: Effective Table Data Synthesizing. 2021. <https://arxiv.org/abs/2102.08369> (Under review).
- Zilong Zhao**, Robert Birke, Aditya Kumar, Lydia Chen. FED-TGAN: Federated Learning Framework for Synthesizing Tabular Data. 2021. (Under review & Under patent submission).
- Aditya Kumar, Robert Birke, **Zilong Zhao**, Lydia Chen. DTGAN: Differential Private Training for Tabular GANs. 2021. <https://arxiv.org/abs/2107.02521> (Under review).
- Joel A. Mefford, **Zilong Zhao**, Leah Heilier, Man Xu, Guifeng Zhou, Rachel Mace, Kelly L. Sloane, Shannon M. Sheppard, Shenly Glenn. The utility of speech and language features in the separation of MCI from healthy controls: Varied performance of picture description task as a screening tool across MCI subtypes. Journal of Neuropsychology. (Under review).
- Benjamin Provan-Bessell, Lydia Chen, **Zilong Zhao**. DescriptionGAN: Text-to-Comic Generative Adversarial Network. 2021 (Under review)

Honors & Awards

2021	Europe Social Innovation Competition: Semi-Finalist (on-going) , Project: Generatrix. Using synthetic data to boost data analysis in the fields, where originally suffers from data hunger and data privacy issues.	<i>Delft, Netherlands</i>
2021	AEGON Insurance Group Grant , Tech lead for research collaboration between TU Delft and AEGON Insurance Group on Generative model for synthetic data, 30K Euro.	<i>Delft, Netherlands</i>
2021	NWO Grant , Co-applicant of Project: Tabular Data Synthesizer, won award in special cybersecurity round Take-off, 40K Euro. Take-off is a funding instrument from NWO Domain Applied and Engineering Sciences for researchers who want to market their innovative knowledge.	<i>Delft, Netherlands</i>
2021	TTT-SI Grant , Co-applicant of Project: Generatrix (formerly known as Tabular Data Synthesizer), won Thematic Technology Transfer - Smart Industries (TTT-SI) grant, 25K Euro. This program joins the 4 technical universities (Delft, Eindhoven, Twente, Wageningen) and TNO on value creation in Smart Systems.	<i>Delft, Netherlands</i>
2019	FAPESP Scholarship , Fellowship to the São Paulo School of Advanced Science on Learning from Data. Selected 100 out of 670 applications from the researchers all over the world, around 2500 USD.	<i>São Paulo, Brazil</i>
2019	DSN Travel Grant , Student travel grant for 49th IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2019).	<i>Portland, USA</i>
2017	PhD Scholarship , Scholarship from IDEX (Initiative d'excellence) Project for PhD position in University of Grenoble Alpes.	<i>Grenoble, France</i>
2016	Explora Sup Scholarship , Auvergne-Rhône-Alpes Council Grant for international internship.	<i>Grenoble, France</i>
2015	Merit Student Award , Annual Student Achievement Assessment of Dalian University of Technology.	<i>Dalian, China</i>

Professional Service

TECHNICAL PROGRAM COMMITTEE (TPC) MEMBER

- The IEEE International Conference on Cloud Engineering (IC2E) conference 2021
- The IEEE/ACM International Conference on Big Data Computing, Applications and Technologies 2021

JOURNAL & CONFERENCE PAPER REVIEW

Since Oct. 2017

- ACM Symposium on Cloud Computing (SoCC) 2020&2021, Middleware 2019&2021, International World Wide Web conference (WWW) 2020, International Parallel and Distributed Processing Symposium (IPDPS) 2020, 21st (International Federation of Automatic Control) IFAC World Congress (IFAC) 2020. IJCAI 2020. IEEE Transactions on Dependable and Secure Computing (TDSC).

Advising Experience

Delft, Netherlands

MASTER THESIS

2020 - 2021

- Aditya Kumar: **Tabular Data Synthesizer**

Delft, Netherlands

BACHELOR THESIS

since 2021

- Ben Provan-Bessell: **Text-to-Comic Generative Adversarial Network**
- Maciej Styczeń: **Automated Text-Image Comic Dataset Construction**
- Bartłomiej Kotlicki: **HaarCNN: Detection and Recognition of Comic Strip Characters with Deep**
- Darwin Morris: **Synthesizing Comics via Conditional Generative Adversarial Networks**
- Krzysztof Garbowicz: **DiLBERT²: Humor Detection and Sentiment Analysis of Comic Texts Using Fine-Tuned BERT Models**
- Jan-Mark Dannenberg: **Time Series Synthesis using Generative Adversarial Networks**
- Pepijn te Marvelde: **Differentially Private GAN for Time Series**
- Marcus Plesner: **FeTGAN: Federated Time-Series Generative Adversarial Network**
- Auke Schaap: **Time Series Synthesis Using GANs - A take on DoppelGANger**

Working Experience

Delft University of Technology (TU Delft)

Delft, Netherlands

POSTDOC

Since Jul. 2020

- Built Robust, Private and Distributed Machine Learning Systems.
- Built Generative Adversarial Networks (GANs) for tabular data.
- Tech lead on collaboration with AEGON Insurance Group on Generative model for synthetic data.
- Content contributor and guest lecturer for master course CS4310 2020: Seminar on Distributed Machine Learning Systems..
- Supervised 1 master thesis, 9 bachelor theses.

Miro Health (Seed Round Start-up, Remote)

San Francisco, USA

DATA SCIENTIST AND LEADING AI ENGINEER

Mar. 2018 - May. 2020

- Built on-device speech recognition system based on Kaldi. Migrate Kaldi system (which is originally coded on Linux) into iOS system.
- Built machine learning pipeline for clinic data.
- **Doing research with S.C.O.R.E Lab at John Hopkins University, laboratory for Cognition and Neural Stimulation at University of Pennsylvania, Departments of Neurology and Computational Medicine at UCLA.**

WISEO

Grenoble, France

INTERNSHIP

Mar. 2016 - Sep. 2017

- Virtualize Trello in Hololens and CardBoard using Trello API. For Hololens, paste cards on a real wall and display them in augmented reality.
- Teleport simulation using Kinect 2, Hololens and HTC Vive. (Demo: <https://www.youtube.com/watch?v=qmYMYuw3Rr8>)

Universidade Federal do Rio Grande do Sul

Porto Alegre, Brazil

INTERNSHIP

May. 2016 - Aug. 2016

- Set up speech recognition system for Brazilian Portuguese at Neurocognition and Natural Language Processing Laboratory.

Languages

Chinese (Native), English (Professional), French (Professional)