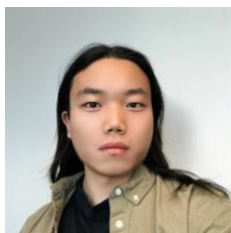


# Yaolin Ge

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## Summary

- Ph.D. candidate in the statistics group at Dept. of mathematical sciences at NTNU.
- Experience with machine learning software system development using Python and cloud services etc.
- Practice data analytics and agile development in a daily routine.

## Education

### Norwegian University of Science and Technology

*Ph.D. candidate in the statistics group, Dept. Mathematical Sciences*

**Trondheim, Norway**

Aug. 2020 – present (expected Aug. 2023)

Thesis project: Developing multi-scale machine learning software systems for data analytics purposes to boost the autonomy of robotic oceanographic sampling.

### KTH Royal Institute of Technology

*MSc, Maritime Engineering, G.P.A. 4.625/5.00*

**Stockholm, Sweden**

Aug. 2019 – Jul. 2020

Thesis project: Developed an embedded software system to estimate and predict the location of underwater robots.

### Norwegian University of Science and Technology

*MSc, Marine Technology, G.P.A. 3.93/4.00*

**Trondheim, Norway**

Aug. 2018 – Jun. 2019

Relevant project: Developed numerical prediction system for the lifting forces of a propeller.

### University of Strathclyde

*International Student Exchange Program, G.P.A. 3.85/4.00*

**Glasgow, United Kingdom**

Sept. 2017 – Jan. 2018

Relevant project: Analyzed structural static and dynamic behavior using the finite element method.

### Jiangsu University of Science and Technology

*BSc, Naval Architecture and Ocean Engineering, G.P.A. 3.89/4.00, Rank: 2/230*

**Zhenjiang, China**

Sept. 2014 – Jun. 2018

Thesis project: Analyzed the results of a numerical solver to study the effect of Vortex-Induced-Vibration on slender body structures such as a steel catenary riser (SCR) in the deep sea.

Awards: National Scholarship (top 1%), First prize in Academic Competition in Mechanics knowledge,

## Experience

### Norwegian University of Science and Technology

*Ph.D. candidate, Dept. Mathematical Sciences*

**Trondheim, Norway**

Aug. 2020 – present

- Designed and implemented multi-scale machine learning software systems for variable data analytics objectives.
- Deployed and integrated the systems onboard an unmanned robot for several successful field experiments.
- Collaborate and communicate closely with multiple customers including SINTEF Ocean, AURLab NTNU, LSTS Portugal, and MARETEC Portugal for knowledge dissemination to foster novel ideas.
- Analyze big datasets using Python and other cloud infrastructures such as Google Colab and AWS.
- Document and publish the results to relevant stakeholders and clients and share knowledge with the public. Two papers were accepted.

### Peking University

*Summer research student at AI+Art Lab, PKU*

**Beijing, China**

Jul. 2019 – Aug. 2019

- Studied machine learning and deep learning principles, particularly computer vision techniques.
- Applied and integrated motion-capturing algorithms *OpenPose* onboard a humanoid robot. [[video](#)]
- Demonstrated the performance of the algorithms with a robot dance show. [[video](#)]

## Skills & Interests

**Programming:** Python, Git, SQL, R, C/C++, Bash scripting, Matlab, Julia

**Frameworks:** Numpy, Pandas, Scipy, Matplotlib, Plotly, CUDA

**Software:** PyCharm, VS Code, QGIS, Microsoft Office365, Anaconda, Adobe Photoshop/Illustrator

**Language:** English (full professional), Norwegian (conversational), Mandarin (native)

**Interests:** Outdoor life (camping, summitting, cross-country skiing ...), Taekwondo, Dance, Music, Travelling

## Awards & Competitions

2021	Taekwondo WT – NM 2021, 3 <sup>rd</sup> in KAMP, 4 <sup>th</sup> in Poomsae, Norway
2019	Best Popular Prize, AI + Art in Robot Dancing Competition, PKU, China
2017	Merit Student, MOE, China
2017	First Prize, Academic Competition in Mechanics Knowledge, JUST, China
2016 – 2017	National Scholarship, MOE, China
2016	Second Prize Scholarship, CSSC Huangpu Wenchong, China
2015 – 2016	First Prize, Renmin Scholarship, MOE, China
2015	National Encouragement Scholarship, MOE, China

## Publication

[1] Yaolin Ge, André Julius Hovd Olaisen, Jo Eidsvik, R. Praveen Jain, and Tor Arne Johansen. Long-horizon informative path planning with obstacles and time constraints. IFAC-PapersOnLine, 55(31):124–129, 2022. 14th IFAC Conference on Control Applications in Marine Systems, Robotics, and Vehicles CAMS 2022.

[2] Yaolin Ge, Jo Eidsvik, Tore Mo-Bjørkelund. 3D Adaptive AUV Sampling for the Classification of Water Masses. IEEE Journal of Oceanic Engineering, 2023. [accepted and underproduction]

## Extra-curricular

### Taekwondo instructor Trondheim, Norway

*NTNUI Taekwondo*

Jan. 2020 – present

- I am a Taekwondo instructor who plans and adapts training for all members.
- Competed in the Norwegian Championships in 2021, won 1 bronze medal in combat senior M 74+.

### Salsa line instructor Trondheim, Norway

*NTNUI Dans*

Sept. 2021 – present

- I am involved in the organization of the weekly dance classes.

## Certificates

### Deep Learning Specialization

acquired: 15<sup>th</sup> April 2020, Coursera

*This is offered by deeplearning.ai, which covers basic and advanced topics in deep learning with practical programming tasks, which enable me to build deep learning models and solve real-world problems.*

### Fundamentals of Accelerated Computing with CUDA Python

acquired: 20<sup>th</sup> April 2022, NVIDIA

*I have learned about how to speed up the calculation using GPU programs using CUDA.*

## Reference

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Jimmy Luong. System developer	Norconsult Informasjonssystemer AS jimmy.luong@norconsult.com	+47 4590 0863