**Yaolin Ge**

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**Summary**

*He has shown his passion in ocean and technologies through his education and experience. He likes to explore new things and willing to learn from others. He is also active in his spare time hiking and skiing etc. He likes nature, not only the journal.*

**Education**

**Norwegian University of Science and Technology Trondheim, Norway**

*Ph.D. candidate, Dept. Mathematical Sciences*  Aug. 2020 – present (expected Aug. 2023)

Working on [MASCOT](https://wiki.math.ntnu.no/mascot) project with the objective of autonomous sampling for different ocean properties using versatile approaches including statistical modeling, AUV sampling and satellite sensing etc. Conducting field experiment to validate the robustness of the system.

**KTH Royal Institute of Technology Stockholm, Sweden**

*MSc, Maritime Engineering,* G.P.A. 4.625/5.00 Aug. 2019 – Jul. 2020

Participated the two-week field trip in Askö, Sweden to test the performance of the under-communication system and analyzed in-situ data from the water column in the master project.

**Norwegian University of Science and Technology Trondheim, Norway**

*MSc, Marine Technology,* G.P.A. 3.93/4.00 Aug. 2018 – Jun. 2019

Participated a field trip to discover a WWII wreckage and collect water quality samples in Trondheimsfjorden, Norway using LAUV-Harald in the course *Underwater Technology* supervised by Martin Ludvigsen.

**University of Strathclyde Glasgow, United Kingdom**

*International Student Exchange Program,* G.P.A. 3.85/4.00Sept. 2017 – Jan. 2018

Studied and conducted analysis using computational fluid dynamics (CFD) and finite element analysis (FEA) in relevant coursework. Attended local language school and social events to enhance communication skills.

**Jiangsu University of Science and Technology Zhenjiang, China**

*BSc, Naval Architecture and Ocean Engineering,* G.P.A. 3.89/4.00**,** Rank: 2/230Sept. 2014 – Jun. 2018

Analyzed the results from 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%) 2016; Undergraduate IoT Research Fellowship.

**Research Experience**

**Norwegian University of Science and Technology Trondheim, Norway**

*Ph.D. candidate, Dept. Mathematical Sciences*  Aug. 2020 – present

* Designed multi-scale research projects for variable objectives exploiting numerous resources including SINMOD, LAUV-Thor/Harald, Sentinel-2 etc.
* Conducted six field trips in Trondheimsfjorden, Norway, and six field trips in the Atlantic Ocean to validate the robustness and sensitivity of the system.
* Collaborate closely with multiple research institutes including SINTEF Ocean, AURLab NTNU, LSTS, MARETEC for knowledge dissemination to foster novel ideas.
* Analyze and interpret *in-situ* measurements using statistical kriging techniques and QGIS etc.
* Document and publish the results to relevant scientific communities and share knowledge with the general public. Two papers submitted (1 accepted, 1 review). Two posters presented in NORDSTAT 2021 and Geilo Winter Schoool 2023. Talks at MIT Portugal Marine Robotics Summer School 2021 and IFAC CAMS 2022 and several other internal seminars within the department.

**Peking University Beijing, China**

*Summer research student at AI+Art Lab, PKU*Jul. 2019 – Aug. 2019

* Studied machine learning and deep learning principles, particularly computer vision techniques.
* Applied and integrated motion capturing algorithms[*OpenPose*](https://cmu-perceptual-computing-lab.github.io/openpose/web/html/doc/index.html) onboard a humanoid robot. [[video](https://www.youtube.com/watch?v=kmty0bGUTb8)]
* Demonstrated the performance of the algorithms with a robot dance show. [[video](https://www.youtube.com/watch?v=LG3HtLOEfPs)]

**Skills & Interests**

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

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

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

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

**Interests:** Friluftsliv (camping, topptur, langrenn og dykking ...), Taekwondo, Dance, Music, Travelling

**Awards & Competitions**

2022 Undervannsrugby NS1, NTNUI DG 8th, Norway

2021 Taekwondo WT – [NM](https://www.sportdata.org/kampsport/set-online/popup_main.php?popup_action=results&vernr=557&active_menu=calendar) 2021, 3rd in KAMP, 4th 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.

**Extra-curricular**

**Taekwondo instructor Trondheim, Norway**

*NTNUI Taekwondo*Jan. 2021 – present

* Planed and scheduled the customized trainings for all members.
* Participated workshops and graduation seminars to update my knowledge.
* Competed in the Norgesmesterskap in 2021, won1 bronze medal in kamp senior M 74+.
* Organized social activities to build bonds with members.

**Salsa line instructor Trondheim, Norway**

*NTNUI Dans* Sept. 2022 – present

* Organized dance practices weekly.
* Communicated and adjusted the programs according to feedback.
* Organized dance parties and festivals.

**DNT Member Trondheim, Norway**

*DNT ung Trøndelag* Sept. 2021 – present

* Participated hiking and skiing trips actively.
* Attended first-aid and avalanche courses to gain necessary knowledge.
* Practicing turleder courses to gain essential skills to become a turleder one day.

**Certificates**

Fundamentals of Accelerated Computing with CUDA Python acquired: Apr. 20, 2022, NVIDIA

Sensor Fusion acquired: Aug. 10, 2020, Udacity

Deep Learning Specialization acquired: Apr. 15, 2020, Coursera

**Reference**

Jo Eidsvik Dept. of Mathematical Sciences, NTNU

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