

Yaolin Ge

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Summary

He is currently devoting his effort to testing the intelligent statistical sampling and forecasting system he has designed and implemented in his Ph.D. study. He keeps writing his papers and software during working hours and jumps into the snow right after dinner. He is passionate about nature and healthy lifestyles.

Education

Norwegian University of Science and Technology

Ph.D. candidate, Dept. Mathematical Sciences

Project MASCOT: Developing a statistical forecasting and sampling system consisted of AI, robot and oceanography.

Trondheim, Norway

Aug. 2020 – present (expected Aug. 2023)

KTH Royal Institute of Technology

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

Thesis project: Developed an embedded DSP software system to estimate and forecast the location of the agent.

Stockholm, Sweden

Aug. 2019 – Jul. 2020

Norwegian University of Science and Technology

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

Relevant coursework: Developed numerical prediction system for propellers lifting forces.

Trondheim, Norway

Aug. 2018 – Jun. 2019

University of Strathclyde

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

Relevant coursework: Implemented state-of-the-art stress forecast system for structural analysis.

Glasgow, United Kingdom

Sept. 2017 – Jan. 2018

Jiangsu University of Science and Technology

BSc, Ocean Engineering, G.P.A. 3.89/4.00, Rank: 2/230

Awards: National Scholarship (Top 1%) 2016; Undergraduate IoT Research Fellowship.

Zhenjiang, China

Sept. 2014 – Jun. 2018

Research Experience

Norwegian University of Science and Technology

Ph.D. candidate, Dept. Mathematical Sciences

- Design and implement state-of-the-art AI algorithms and software for statistical sampling and forecasting.
- Test and validate algorithms using cloud computing such as NTNU IDUN, AWS and Google Colab etc.
- Analyze and visualize *in-situ* measurements using Pandas, NumPy, Matplotlib and Plotly etc.
- Document and publish the results to relevant scientific communities.

Trondheim, Norway

Aug. 2020 – present (expected Aug. 2023)

University of Porto

Visiting researcher at LSTS, FEUP

- Collaborated efficiently with international colleagues remotely and on-site.
- Conducted multiple on-site field trips to verify and validate the performance of the models.
- Demonstrated the scalability and robustness of our system with two successful field trials.

Porto, Portugal

Apr. 2021 – Nov. 2022

Peking University

Summer research intern at AI+Art Lab, PKU

- Studied deep learning principles, particularly computer vision techniques.
- Trained a DNN model for computer vision applications using fashion MNIST dataset.
- Employed the CNN model using TensorFlow Keras module for more complex image classification and object detection purposes.
- Implemented and integrated motion capturing algorithms such as *OpenPose* onboard *Yanshee* humanoid robot. [\[video\]](#)
- Demonstrated the performance of the algorithms with a human-robot dance show. [\[video\]](#)

Beijing, China

Jul. 2019 – Aug. 2019

Skills & Interests

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

Frameworks: Tensorflow, OpenCV, PyTorch

Software: Microsoft Office365, Anaconda, QGIS, VS Code, PyCharm, 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 8 th , Norway
2021	Taekwondo WT – NM 2021, 3 rd in KAMP, 4 th 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

NTNUI Taekwondo

Trondheim, Norway

Jan. 2020 – present

- Planned and scheduled the customized trainings for all members.
- Participated workshops and graduations to update the knowledge.
- Competed in the Norgesmesterskap in 2021, won 1 bronze medal in kamp senior M 74+.
- Organized social activities to build bonds with members.

Salsa line instructor

NTNUI Dans

Trondheim, Norway

Sept. 2021 – present

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

DNT Member

DNT ung Trøndelag

Trondheim, Norway

Sept. 2021 – present

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

Reference is available upon request