

Yaolin Ge

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PERSONAL INFORMATION

Date of Birth: October 20, 1996

Place of Birth: Shaanxi, China

Citizenship: Chinese

Gender: Male

EDUCATION

Aug. 2019 – Present	KTH Royal Institute of Technology, Stockholm, Sweden M.S. Maritime Engineering Thesis: Signal Processing of Underwater Beacons for AUVs
Aug. 2018 – Jun. 2019	Norwegian University of Science and Technology, Trondheim, Norway G.P.A. 3.93/4.00 M.S. Marine Technology
Sept. 2017 – Jan. 2018	University of Strathclyde, Glasgow, United Kingdom G.P.A. 3.85/4.00 B.S. Naval Architecture & Ocean and Marine Engineering
Sept. 2014 – Jun. 2018	Jiangsu University of Science and Technology, Zhenjiang, China G.P.A. 3.89/4.00 B.S. Naval Architecture & Ocean Engineering

RESEARCH EXPERIENCE

Aug. 2019 – present	Research on the underwater navigation system (M.S. Degree Project) KTH & Swedish Maritime Robotics Centre (SMaRC), Stockholm, Sweden <ul style="list-style-type: none">Reviewed the common underwater sonar systems including both active sonar and passive sonar signal processing systemsInvestigated the core algorithms for the detection, classification, localisation, and tracking systems of the underwater situation awareness systemStudied the advanced estimation algorithms such as EKF, UKF, CMF & QMF for active sonar detection and range estimation purposesPlanned to conduct field trips to evaluate the performance of the model Supervisors: Martin Ludvigsen, Professor; Peter Sigray, Professor
Jan. 2019 – Jun. 2019	Research on the acoustic sensing seabed survey of a virgin wreck site AURLab & Dept. of Marine Technology, NTNU, Trondheim <ul style="list-style-type: none">Studied the seabed sensing survey equipment, such as LAUV Fridtjof with sensors like SSS (side-scan sonar), CTD profiler, DVL, GPS, Camera etc.Planned the appropriate preliminary underwater survey paths considering the bathymetry & topology of the seabedConducted the field trip on board R/V Gunnerus to collect dataPost-processed and documented the acoustic images for further research Supervisor: Martin Ludvigsen, Professor
Jan. 2019 – Jun. 2019	Project on the design and analysis of underwater robotics KTH & Swedish Maritime Robotics Centre (SMaRC), Stockholm, Sweden <ul style="list-style-type: none">Designed a new generation underwater robotics based on EelumeSimulated the operation of the designed vehicle and perception systemConducted the manoeuvring simulation and hardware-in-the-loop testing Supervisor: Ivan Stenius, Associate Professor

PROFESSIONAL QUALIFICATIONS

Personal Skills:

Programming language with C, C++, Python & MATLAB; Embedded system programming with MPLAB X IDE; Simulation with Simlink (Simscape Electrical/ SimEvents/DSP); Computer Vision with OpenCV; Robotics development with ROS; 3D FDM printing; Microsoft Office; Latex

Languages:

English (fluent)
Chinese (native)

AWARDS

2019	Intel® Edge AI Scholarship, Intel
2019	Best Popular Prize, AI + Art in Robot Dancing Competition, PKU
2017	Merit Student, MOE
2017	First Prize, Academic Competition in Mechanics Knowledge, JUST
2016 – 2017	National Scholarship, MOE
2016	Second Prize Scholarship, CSSC Huangpu Wenchong
2015 - 2016	First Prize, Renmin Scholarship, MOE
2015	National Encouragement Scholarship, MOE
2015	Second Prize, Decelerator Assembly & Disassembly Contest, JUST
2014	Honourable Mention, CMIH Simulation Model Design Contest, JUST
2014	First Prize, Diesel Engine Assembly & Disassembly Contest, SIYANG

PROFESSIONAL MEMBERSHIPS

The Royal Institute of Naval Architects (RINA)
Kongl. Skeppssällskapet

EXTRA-CURRICULAR

Jan. 2020 – Present	NanoDegree program in Sensor Fusion Udacity, United States <ul style="list-style-type: none">• Participated the MOOCs web-based courses, seminars and discussions• Studied common sensing systems including Lidar, Radar, Camera etc.• Worked with simulators to merge all sensing data
Jul. 2019 – Aug. 2019	Summer campus program in Deep Learning Peking University, Beijing, China <ul style="list-style-type: none">• Studied the deep learning principles and applied openpose algorithm• Conducted the motion capture and mapped the 2D motion to 3D skeleton• Programmed Yanshee Robot to dance following human motions
Oct. 2014 – Jun. 2018	Team Member Student Volunteer Association, Zhenjiang, China <ul style="list-style-type: none">• Participated in local and on-campus volunteering activities regularly

REFEREES:

Ivan Stenius Associate Professor	Dept. of Aeronautics and Vehicle Engineering, KTH stenius@kth.se	+46 70 288 82 63
Martin Ludvigsen Professor	Dept. of Marine Technology, NTNU martin.ludvigsen@ntnu.no	+47 91897272

INTERESTS

Running, bicycling, swimming, fitness training, cross-country skiing