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 • Reviewed the common underwater sonar systems including both active sonar and passive sonar signal processing systems • Investigated the core algorithms for the detection, classification, localisation, and tracking systems of the underwater situation awareness system • Studied the advanced estimation algorithms such as EKF, UKF, CMF & QMF for active sonar detection and range estimation purposes • Planned 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 • Studied the seabed sensing survey equipment, such as LAUV Fridtjøf 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 seabed • Conducted the field trip on board R/V Gunnerus to collect data • Post-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 • Designed a new generation underwater robotics based on Eelume • Simulated the operation of the designed vehicle and perception system • Conducted 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; Modelling with Solidworks/Inventor; 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

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

EXTRA-CURRICULAR
Jan. 2020 – Present	**NanoDegree program in Sensor Fusion**

Udacity, United States
- 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
- 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
- Participated in local and on-campus volunteering activities regularly

REFEREES:
Ivan Stenius	Dept. of Aeronautics and Vehicle Engineering, KTH	
Associate Professor	stenius@kth.se	+46 70 288 82 63
Martin Ludvigsen	Dept. of Marine Technology, NTNU	
Professor	martin.ludvigsen@ntnu.no	+47 91897272
ZHOU Hong	Dept. of NAOME, Jiangsu University of Science and Technology	
Professor	zjcyzh@163.com	+86 1365 6136 398

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