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 (Adviser Prof. Kuttenkeuler)** **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 (Co-adviser Prof. Ludvigsen)**
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. 3.81/4.00** **B.S. Naval Architecture & Ocean Engineering**

RESEARCH EXPERIENCE

Aug. 2019 – present	**Research on the Signal Processing of Underwater Beacons for AUVs** KTH & Swedish Maritime Robotics Centre (SMaRC), Stockholm, Sweden - Upgraded the firmware of the sonar microcontroller - Commissioning the sonar hardware setup environment - Prepared to do site tests in both open air and underwater environments - To Signal process returned echoes and set proper noise filter - To employ the updated system to the rescue system Supervisors: Jakob Kuttenkeuler, Professor; Martin Ludvigsen, Professor
Jan. 2019 – Jun. 2019	**Research on the acoustic sensing seabed survey of a virgin wreck site** The Applied Underwater Robotics Laboratory, Trondheim, Norway - Prepared the seabed sensing survey equipment, such as LAUV Fridtjøf with sensors like SSS, CTD profiler, DVL, GPS, Camera etc. - Carried out preliminary SJA, FMECA, HAZIP, HAZOP plans - 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	**Research on the power management system of a hybrid vessel** Hybrid Power Systems Laboratory, Trondheim, Norway - Investigated the application of power electronics to this system such as IGBT, BJT, MOSFET etc. - Designed a bi-directional DC-DC power converter using IGBT components - Modelled PWM (pulse-width modulation) signals for the DC-DC converter - Simulated both droop control as well as isochronous control schemes - Analysed the potential risks of DC buses onboard hybrid vessel Supervisor: Mehdi Zadeh, Associate Professor

PROFESSIONAL QUALIFICATIONS
Personal Skills:
Programming language with C, C++, Python & MATLAB; CAD modelling with Solidworks/AutoCAD; Simulation with Simlink (Simscape Electrical/SimEvents) Computer Vision with OpenCV; Robotics development with ROS; 3D FDM printing; Microsoft Office; Latex

Languages:
English (fluent)
Chinese (native)

AWARDS
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	Honourable Mention, Xuediao Innovative Design Contest, JUST
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
Jul. 2019 – Aug. 2019 **Summer campus student**
Peking University, Beijing, China
- Applied OpenPose algorithm to achieve the motion capture activities
- Applied the motion mapping tool to convert 2D motions to 3D skeleton ones
- Programmed Yanshee Robot to dance following human motions

Mar. 2017 – Apr. 2017 **Interpreter Intern**
IDP Education Ltd., Nanjing, China
- Organised the introduction events for university's admission committee and expected applicants
- Interpreted and assisted applicants with communications with admission committees' representatives

Oct. 2014 – Jun. 2018 **Team Member**
Student Volunteer Association, Zhenjiang, China
- Participated in local and on-campus volunteering activities regularly

REFEREES:
Martin Ludvigsen (Ph.D.)	Applied Underwater Robotics Laboratory (AUR-Lab), NTNU	
Professor	martin.ludvigsen@ntnu.no	+47 91897272
Mehdi Zadeh (Ph.D.)	Hybrid Power Systems Laboratory (HPS), NTNU	
Associate Professor	mehdi.zadeh@ntnu.no	+47 73413202
Tahsin Tezdogan (Ph.D.)	Dept. of NAOME, University of Strathclyde	
Senior Lecturer	tahsin.tezdogan@strath.ac.uk	+44 (0)141 548 4532

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