# 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 (Small Craft Design)

Aug. 2018 – Jun. 2019 Norwegian University of Science and Technology, Trondheim, Norway

G.P.A. 3.93/4.00

M.S. Marine Technology (Ocean Structure)

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** 

### **PROJECT EXPERIENCE**

Aug. 2019 – Present

#### **Maribot Vane 2.0 Design Project**

KTH & SMaRC (Swedish Maritime and Robotic Center), Stockholm, Sweden

- Designed and built the Maribot Vane 2.0, an autonomous sailing vessel
- Engineered and manufactured the glass fibre-made rudder
- Evaluated the mechanical behaviour under certain load contions for most of 3D printed parts as well as parts made from composite materials
- Studied and assessed the performance of the components made from composite materials in terms of weight and strength

Sept. 2018 – Dec. 2018

#### Project on simulation-based design of the cruise ship balcony

TMR4320 Simulation-Based Design, NTNU, Trondheim

- Developed an initial design concept and assessed the principle dimensions, stress distribution & deflection
- Conducted the FEA analysis under multiple loading conditions and simulated the
- Established a parametric model and optimised the model using PSO codes out of minimum weight

Supervisor: Ekaterina Kim, Associate Professor

Aug. 2017 – Jan. 2018

#### Project on the investigation of flow pattern on a circular cylinder

NM402 Theory and Practice of Marine CFD, Univ. of Strathclyde, Glasgow

- Studied the vortex shedding phenomenon and physics behind VIV and applied the time-domain VIV model for low mass ratio system
- Reviewed analysis methods such as finite volume method and finite difference method for necessary analysis of computational fluid dynamics
- Simulated the behaviour of the flow pattern for a rigid body circular cylinder under steady flow condition using Star-CCM+

Supervisor: Qing Xiao, Reader; Wendi Liu, Research Associate

#### **PROFESSIONAL QUALIFICATIONS**

#### **Personal Skills:**

Programming language with C/C++, Python & MATLAB; FEA analysis using Abaqus & ANSYS APDL; Foil analysis using XFoil; CFD analysis using Star-CCM+; CAD modelling with Solidworks/AutoCAD; Simulation with Simlink (Simevents); 3D FDM printing; Microsoft Office; Latex

#### Languages:

English (fluent) Chinese (native)

Swedish (conversational)

#### **AWARDS**

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	National Encouragement Scholarship, MOE
2015	Honourable Mention, Xuediao Structural Innovative Design 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

#### Project on computer vision for robotic perception

Peking University, Beijing, China

- Applied OpenPose algorithm to achieve the motion capture activities
- Employed the motion mapping tool to convert 2D motions to 3D skeleton ones
- Programmed Yanshee Robot to dance following human motions

Oct. 2014 - Jun. 2018

#### **Team Leader**

Student Volunteer Association, Zhenjiang, China

Organised local and on-campus volunteering activities regularly

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

### **REFEREES:**

Tahsin Tezdogan Department of NAOME, University of Strathclyde

Senior Lecturer tahsin.tezdogan@strath.ac.uk +44 (0)141 548 4532

ZHOU Hong Department of Naval Architecture and Ocean Engineering, JUST Professor +86 1365 6136 398

## **INTERESTS**

Running, bicycling, swimming, Taekwondo, cross-country skiing