# 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**

Jan. 2019 – Jun. 2019

# Project on numerical analysis of a Wageningen B-screw series propeller

TMR4220 Naval Hydrodynamics, NTNU, Trondheim

- Analysed the propeller with induction-factor-enhanced lifting line method
- Investigated rake, skew and hub effects on the propeller blade
- Conducted an experimental testing in the towing tank at MARINTEK

Supervisors: Kourosh Koushan, Professor

Aug. 2018 – Dec. 2018

#### Project on dynamic & static analysis of marine structures

TMR4305 Advanced Analysis of Marine Structures, NTNU, Trondheim

- Developed the dynamic response model for a marine riser subjected to waves by use of mode superposition method and analysed the drag forces in both time and frequency domain
- Applied static condensation & master-slave techniques for reduction of number of degrees of freedoms and evaluated the riser performance using frequency response method
- Conducted ABAQUS analysis for an elastic-plastic jacket structure and a stiffened plate and studied the linear buckling analysis and nonlinear ultimate strength analysis

Supervisor: Svein Sævik, Professor; Erin Bachynski, Associate Professor

Sept. 2018 – Dec. 2018

#### Project on local structural 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
- Established a parametric model and optimised the model using PSO codes out of minimum weight

Supervisor: Ekaterina Kim, Associate Professor

Jan. 2018 – Jun. 2018

## Project on the added mass effect of VIV for flexible risers

Bachelor's project, Jiangsu University of Science and Technology, Zhenjiang

- Studied the VIV phenomenon and physics behind VIV and summarised the current research model and developed the time-domain VIV model for low mass ratio system considering added mass effect
- Conducted the sensitivity analysis for different top tension force, current velocity as well as mass ratio working conditions

Supervisor: ZHOU Hong, Professor; WANG Kunpeng, Aassociate Professor

## **PROFESSIONAL QUALIFICATIONS**

#### **Personal Skills:**

FEA analysis using Abaqus & ANSYS APDL; Programming language with C++, Python & MATLAB; 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)

### **AWARDS**

2019 Intel® Edge AI Scholarship, Intel

2019 Best Popular Prize, AI + Art in Robot Dancing Competition, PKU 2017 First Prize, Academic Competition in Mechanics Knowledge, JUST

2016 – 2017 National Scholarship, MOE

2015 Honourable Mention, Xuediao Structural Innovative 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**

Aug. 2019 – Present

Maribot Vane 2.0 Design Project

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

• Designed and built the next Maribot Vane, an autonomous sailing vessel

Jul. 2019 – Aug. 2019 Summer campus student

Peking University, Beijing, China

• Applied deeplearning algorithm to achieve the motion capture activities and applied and 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:** 

Kourosh Koushan Department of Marine Technology, NTNU

Professor kourosh.koushan@ntnu.no +47 41105297

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