### Yushan Pan's Short CV

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#### Summary

Yushan's research is on the intersection between information technology and ethnography. His focus is on developing a systematic, conceptual and practical foundation for understanding, designing, integrating and implementing computational artifacts in software and system applications, especially in relation to digital divide in Norway shipping industry. Yushan holds a PhD in human-centric computing and has published extensively on the relationships between humans, their practices, and information technology.

Yushan is a professional member at ACM SIGCHI, European Society for Socially Embedded Technologies, and Association for Information Systems.

### CORE SKILLS

project management (1.5 years), Qualitative measures (8 years of experience, including system development, UX experience and design), Quantitative measures (10 years of experience), Data Science (5 years of experience, i.e., Python, SQL, Statistics and mathematical modelling and Algorithm design)

#### **EDUCATION**

University of Maryland

College Park, USA

 $Professional\ course\ (Non-degree,\ online)\ +\ Cybersecurity$ 

2020

IBM

Online

 $Professional\ course\ (Non-degree,\ online)\ +\ Data\ science$ 

2020

University of Oslo

Oslo, Norway

PhD + Design of information systems

2013.08-2018.11

Norwegian University of Science and Technology(NTNU)

Trondheim, Norway

MS + Information systems engineering

2010-2012

## ADDITIONAL COURSE

Norwegian University of Science and Technology

University pedagogy

Ålesund, Norway 2020-2021

# RESEARCH COMMUNITY WORK

ACM CHI

International

PC member

2020 - present

• I am PC member for late breaking work program.

#### EASST-European Association for the Study of Science and Technology

2020 - present

Mentor (Permanent)

• I voluntarily work for the research community and supervise PhD students within topics on research methodology.

#### Aarhus University

Aarhus, Denmark 08. 2019

Scientific researcher (Visiting)

EU

• I voluntarily work as a scientific researcher for the forth summer school on computer-supported cooperative work: foundations, methods and technologies.

# WORK EXPERIENCE

Freelance Lecturer

Udemy

Online

from 2021 • I offer four free courses online for nautical student who wants to explore land-based job in high-tech companies in maritime

- industry
  - 1. Design of cooperating systems
  - 2. Qualitative Research Methods in Maritime Informatics
- 3. Data Science in Maritime Management (SQL and database development, Business analytic and Python Programming)

4. Cybersecurity (Human-centric system and applied IT applications for system vulnerability)

### Norwegian University of Science and Technology

Ålesund, Norway 2020 - present

Senior researcher(Permanent)

• I am a senior design science researcher and data scientist within Information Systems, focusing on designing cutting-edge interactive technologies for maritime domain.

### Norwegian University of Science and Technology

Alesund, Norway

Post Doc (Contract)

2017-2019

• My achievement include: 1) Propose a set of design schemes based on computer-supported cooperative operations. 2) Established organizational usability. 3) Design human-artificial intelligence interaction. 4) Redesign interaction interface. 5) Develop design standards for operator-centered interactive systems.

PTC INC. Greater China

Consultant (Permanent)

2012 - 2013

• I was an on-site engineer working with customers for developing, documenting and testing product life-cycle management systems for an aviation company.

#### PROJECT WORK

The development of cue-based informational aids for digital twin-oriented navigation of Gunnerus ship PI. Funded by NTNU. 2020 - 2021

- Using data as infrastructure to redesign the interactive technologies for maritime navigation system.
- Deep-learning operational data and equipment performance data to optimise work routines and ship maintenance through land-based digital cave.

#### Sustainable Development of BLUE Economies Through Higher Education and Innovation in Western Balkan Countries Lead of Quality Assurance Team. Funded by EU 2020 - 2023

• Project management and quality control.

## SkillSea: Future-proof Skills for the Maritime Transport Sector Scientist. Funded by EU

2018 - 2022

- Examines work and learning in settings where new technologies for service coordination and for machine supported analytical processes and decision making have been implemented
  - 1. Investigate the 'datafication trend' which relates to big data and automation, and the 'platform trend' which relates to new forms of work coordination and distribution in digital platforms
  - 2. Study user experience in both dataficiation and platform trends and highly specialised work in game-based software systems for maritime domain.

Operator-centred design of maritme simulators Researcher. Funded by Research Council of Norway 2018 - 2019

- Project management and quality control.
- Deploying CSCW insights into systems development.
- Developing organisational usability testing methods.
- Develop risk management tools.

Integrated maritime simulator facilities for risk assessment Researcher. Funded by Research Council of Norway 2018

- Project management and quality control.
- Design collaborative software systems for maritime domain.
- Develop risk management tools.

#### From field to simulator: visualising ethnographic outcomes to support systems developers Research Associate. Funded by Research Council of Norway 2013 - 2017

- Conducting a ground-breaking research on visualising ethnographic outcomes to guide systems design
- Developing a methodology: Utilising data as infrastructure for systems design.
- Deploying use cases as means to maximise the work practices of maritime operators at sea in the design process of cooperating systems.
- Conducting organisational user experience research, qualitatively and quantitatively.
- Translating research outcomes into products of Roll-Royce Marine with local companies in Norway.

#### OTHER SKILLS

Cloud computing: Watson Studio, Microsoft Azure, Alibaba cloud.

Design: Adobe XD, Photoshop, Adobe Illustrator, Unity.

Data analytic tools: Apache Spark, Jupyter, Matplotlib, Scikit-learn, TensorFlow.

# $\underline{\mathbf{AWARD}}$

- 1. PhD fellowship, Research Council of Norway. 2013-2017.
- 2. Chinese government award for outstanding PhD students abroad, 2016.

## REFERENCE

Upon request