

# 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/academic 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

*Professional course (Non-degree, online) + Cybersecurity*

College Park, USA  
2020

### IBM

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

Online  
2020

### University of Oslo

*PhD + Design of information systems*

Oslo, Norway  
2013.08-2018.11

### Norwegian University of Science and Technology(NTNU)

*MS + Information systems engineering*

Trondheim, Norway  
2010-2012

## ADDITIONAL COURSE

### Norwegian University of Science and Technology

*University pedagogy*

Ålesund, Norway  
2020-2021

## RESEARCH COMMUNITY WORK

### ACM CHI

*PC member*

- I am PC member for late breaking work program.

International  
2020 – present

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

*Mentor (Permanent)*

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

EU  
2020 – present

### Aarhus University

*Scientific researcher (Visiting)*

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

Aarhus, Denmark  
08. 2019

## WORK EXPERIENCE

### Udemy

*Freelance Lecturer*

- 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)

Online  
from 2021

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

##### **Norwegian University of Science and Technology**

Ålesund, Norway

*Senior researcher(Permanent)*

2020 – present

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

##### **Norwegian University of Science and Technology**

Ålesund, 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 datafication and platform trends and highly specialised work in game-based maritime interactive systems.

##### **Operator-centred design of maritime 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 maritime simulators.
- 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.

**REFERENCE**

Upon request