

# Control Engineer with Experience in Precise Navigation of Unmanned Aerial Vehicles

Ph.D. with 7+ years of experience with development, implementation, and testing of precise navigation systems for vehicles with fast dynamics. Professional, creative, and with proven analytical skills. Adept at researching and developing highly accurate systems using a wide range of sensors.



## WORK EXPERIENCE

● 06/2017 - present

Kgs. Lyngby, Denmark

### Design Engineer

Cobham SATCOM

● 05/2013 - 07/2013

Copenhagen, Denmark

### Project Employee

MAN Diesel & Turbo

Time limited. Extension of thesis project and outsourcing my student employee project.

● 01/2012 - 11/2012

Copenhagen, Denmark

### Student Employee

MAN Diesel & Turbo

Part time. Initiating development of automated testing of ship controlment GUI.

● 08/2011 - 12/2011

Kgs. Lyngby, Denmark

### Teaching Assistant

Technical University of Denmark, DTU

Part time. The course in 'Computer Control Systems' covers design and implementation of digital linear regulators, with approximately 30 students attending.

● 08/2011 - 12/2011

Kgs. Lyngby, Denmark

### Teaching Assistant

Technical University of Denmark, DTU

Part time. 'Linear Control Design 2' covers single and multi variable systems, state space analysis, and linearisation of non-linear system. Approximately 70 students attended.



## EDUCATION

● 08/2013 - 02/2017

Trondheim, Norway

### Ph.D. Cybernetics

Norwegian University of Science and Technology, NTNU

Researched "Nonlinear Observers for Inertial Navigation aided by Real-Time Kinematic Global Satellite Navigation System" using a dual GNSS receiver configuration to accurately estimate UAV position. The project also included time-delay estimation and hardware development for data acquisition. Achieved centimeter level accuracy.

● **Publications:** Conference: 2 (co 2), Journal: 2 (co 3), Chapter: 1.

● 01/2015 - 06/2015

Calgary, Canada

### Ph.D. Cybernetics (External)

University of Calgary

Joined the Mobil Multi-Sensor Systems Research team, and followed courses in GNSS atmospheric disturbance and inertial navigation.

● 08/2010 - 05/2013

Kgs. Lyngby, Denmark

### M.Sc. Automation and Control

Technical University of Denmark, DTU

Thesis regarded modelling and control of a large diesel engine with exhaust gas recirculation. Completed courses within automation and control: real-time programming, discrete-time control, Kalman filters, full-state feedback regulators, stochastic, adaptive and nonlinear control. My score is 11.3, on the scale where 12=A, and 10=B.

● **Publications:** Conference: 2.

● 01/2011 - 06/2011

Singapore, Singapore

### M.Sc. Automation and Control (External)

Nanyang Technological University, NTU

External stay at NTU following courses in: 'System Analysis', 'Robotics and Intelligent Sensors', 'Embedded System Programming' and 'Mobile Game Development'

● 08/2007 - 06/2010

Kgs. Lyngby, Denmark

### B.Sc. Electro Technology

Technical University of Denmark, DTU

Main courses: PLC control, embedded systems, autonomous robots, and vision systems.

# JAKOB MAHLER HANSEN

Ph.D. Cybernetics



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👤 Danish, 32 years

📍 Copenhagen, DK

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🌐 www.jmahler.dk



## LANGUAGES

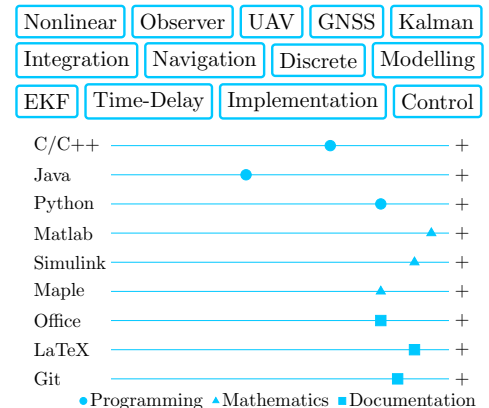
Danish

English

(German)



## SKILLS



## REFERENCES

- Prof. Thor I. Fossen (NTNU):**  
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- Prof. Tor A. Johansen (NTNU):**  
tor.arne.johansen@ntnu.no
- Ph.D. Nadia Sokolova (Sintef):**  
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