

# Daniel Gedon

Curriculum Vitae, January 2022

## Personal Data

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University Address: Uppsala University  
Department of Information Technology  
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LinkedIn: linkedin.com/in/dgedon/  
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Twitter: @danigedon  
Website: dgedon.github.io

Birth: 11.05.1994 in Feuchtwangen, Germany  
Citizenship: German

## Academic Degrees

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### **M.Sc. in System and Control** (09/2017 - 07/2019)

TU Delft, the Netherlands.

Thesis title: *Tensor Network Kalman Filter for Large-Scale MIMO Systems*

Supervisor: Michel Verhaegen

### **B.Eng. in Aerospace Engineering** (09/2012 - 09/2015)

Baden-Württemberg Corporate State University, Germany.

Cooperation with Airbus Defence & Space, Friedrichshafen (Germany).

Thesis title: *Mission Based Cross Validation of the ESA Pointing Error Engineering Tool (PEET)*

Supervisor: Thomas Ott

## Academic Positions

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### **Ph.D. Student** (08/2019 - Present, expected till 2024)

Uppsala University, Sweden

Division of Systems and Control, Department of Information Technology

Supervisors: Thomas Schön, Uppsala University (Sweden), main supervisor

Niklas Wahlström, Uppsala University (Sweden)

Antônio H. Ribeiro, Uppsala University (Sweden)

Founded by Wallenberg AI, Autonomous Systems and Software Project (WASP, [link](#))

### **Teaching Assistant** (10/2018 - Present)

Uppsala University, Sweden

- Ongoing: 1RT700, Statistical Machine Learning, MSc level, Spring 2022, [Syllabus]  
Teaching Assistant
- 1RT700, Statistical Machine Learning, MSc level, Fall 2021, [Syllabus]  
Teaching Assistant
- 1RT495, Automatic Control II, MSc level, Fall 2021, [Syllabus]  
Teaching Assistant
- 1RT485, Introduction to Computer Controlled Systems, BSc level, Spring 2021, [Syllabus]  
Teaching Assistant
- 1RT885, System Identification, MSc level, Spring 2020, [Syllabus]  
Teaching Assistant
- 1RT485, Introduction to Computer Controlled Systems, BSc level, Spring 2020, [Syllabus]  
Teaching Assistant

#### **TU Delft, The Netherlands**

- SC42025, Filtering and Identification, MSc level, Fall 2018, [Syllabus]  
Teaching Assistant

### **Industrial Positions**

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#### **Satellite Attitude and Orbit Control System Analyst, (10/2015 - 09/2016)**

Airbus Defence and Space, Friedrichshafen, Germany  
Department: AOCS, GNC and Flight Dynamics

### **Personal Experience**

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#### **Travel (10/2016 - 04/2017)**

Long distance hike alone in Patagonia [Greater Patagonian Trail].  
Backpacking and exploring new cultures.  
Studying Spanish (Sucre, Bolivia).

#### **Voluntary Work (04/2017 - 08/2017)**

Ansbach, Germany.  
Full-time work with primary school children, elderly and refugees.

### **Publications**

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#### **Working manuscripts**

Stefan Gustafsson\*, **Daniel Gedon\***, Erik Lampa, Antônio H. Ribeiro, Martin J. Holzmann, Thomas B. Schön, Johan Sundström, "Artificial Intelligence-Based ECG Diagnosis of Myocardial Infarction in High-Risk Emergency Department Patients", Preprint, 2022.  
[Preprint]

## Peer-reviewed publications

**Daniel Gedon\***, Stefan Gustafsson\*, Erik Lampa, Antônio H. Ribeiro, Martin J. Holzmann, Thomas B. Schön, Johan Sundström, "ResNet-based ECG Diagnosis of Myocardial Infarction in the Emergency Department", Machine learning from ground truth: New medical imaging datasets for unsolved medical problems Workshop at NeurIPS, 2021, Online. (Spotlight talk)  
[Paper] [Slides]

**Daniel Gedon**, Antônio H. Ribeiro, Niklas Wahlström, Thomas B. Schön, "First Steps Towards Self-Supervised Pretraining of the 12-Lead ECG", Computing in Cardiology (CinC), 2021, online.  
[Paper] [Slides] [Video (10 min)]

**Daniel Gedon**, Niklas Wahlström, Thomas B. Schön, Lennart Ljung, "Deep State Space Models for Nonlinear System Identification", Proceedings of the 19th IFAC Symposium on System Identification (SYSID), 2021, online.  
[doi] [arXiv] [Code] [Slides]

Antônio H. Ribeiro, **Daniel Gedon**, Daniel Martins Teixeira, Manoel H. Ribeiro, Antonio L. Pinho Ribeiro, Thomas B. Schön, Wagner Meira Jr., "Automatic 12-lead ECG classification using a convolutional network ensemble", Computing in Cardiology (CinC), 2020, Online.  
[doi] [IEEE] [Code] [Slides]

**D. Gedon**, P. Piscaer, K. Batselier, C. Smith and M. Verhaegen, "Tensor Network Kalman Filter for LTI Systems", 27th European Signal Processing Conference (EUSIPCO), A Coruna, Spain, 2019, pp. 1-5.  
[doi] [IEEE] [Code] [Slides]

**D. Gedon**, "Tensor Network Kalman Filter for Large-Scale MIMO Systems: With Application to Adaptive Optics", Master Thesis, TU Delft, The Netherlands, 2019.  
[Thesis] [Slides]

Ott T., Hirth M., Casasco M., Goerries S., **Gedon D.**, Ponche A., "PointingSat – High Precision Pointing Error Analysis with ESA PEET v1.0", 10th International ESA Conference on Guidance, Navigation & Control Systems, Salzburg, Austria, 2017.  
[Paper]

\* equal contribution.