

# Amin Ghazanfari

## PhD Candidate and Researcher

I'm currently pursuing a Ph.D. degree in Electrical Engineering at Linköping University. Expected PhD defense: Feb 2021. My main research interests include resource allocation in 5G-and-beyond systems and applying machine learning and deep learning for wireless communications.



amin.ghazanfari@liu.se ✉

0736209597 📞

Linköping University 📍

[scholar.google.com/citations?user=oHQOn-EAAAAJ&hl=en](https://scholar.google.com/citations?user=oHQOn-EAAAAJ&hl=en) 📄

[linkedin.com/in/amin-ghazanfari-96b23842](https://linkedin.com/in/amin-ghazanfari-96b23842) in

aminamin9534 📧

## WORK EXPERIENCE

### Researcher

Linköping University

03/2017 – Present

Linköping, Sweden

#### Achievements/Tasks

- Development of spatial resource allocation algorithm for new radio access networks utilizing Massive MIMO and D2D communications.
- Two IEEE transactions journal publications and two conference papers (ICASSP 2019, WSA 2018). 📄

Advisor: Prof. Emil Björnson

### Research Assistant

University of Oulu

04/2013 – 04/2015

Oulu, Finland

Centre for Wireless Communications

Advisor: Prof. Antti Tölli

## EDUCATION

### PhD Candidate in Electrical Engineering

Linköping University 📄

02/2017 – Present

Linköping University

MIMO systems, adv. detection and estimation, neural networks and deep learning, non-linear optimization

- Expected Graduation: Feb 2021
- Analysis, design and optimization of cellular architectures. Focus on 5G large-scale multiple-antenna technologies (massive MIMO, Device-to-device).
- Co-author in 8 scientific publications (h-index 5).
- (2017-Present) TA in Master Level courses: TSKS16 Signal Processing for Communication. TSST14 Signal Theory. TSIN01 Information Networks.
- Supervised thesis: "Bluetooth LE Mesh Network in an Industrial Environment" by Mattias berglund. Linköping University and Toyota Material Handling Europe.

### Degree of Licentiate of Engineering

Linköping University 📄

10/2019

#### Thesis title

- Power Control for Multi-Cell Massive MIMO

### M.Sc. (Technology) in Wireless Communication Engineering

University of Oulu 📄

09/2011 – 01/2014

4/5, Graduated with Distinction

#### Thesis title

- Coordinated beamforming and power control for network controlled device-to-device (D2D) communication.

## SKILLS

Python

Deep Learning

Machine Learning

Massive MIMO

Optimization Theory

Matlab

Detection and Estimation

Mathematical Analysis

Teaching

Signal Processing

3GPP, 5G

Skill

CVX optimization tools

C++

## PROJECTS

H2020 Marie-Curie ITN "5Gwireless"  
(02/2017 – 12/2018)

- Research on innovative architectures, wireless technologies and tools for high capacity and sustainable 5G ultra-dense cellular networks. Training activities on standardization and patents, EC funding and project management.

EWIN-D & CRUCIAL (04/2013 – 04/2015)

- Research on Energy efficient digital signal processing and resource management for direct network controlled D2D communications.
- Project secretary tasks.

## AWARDS

Marie-Curie Research Fellowship (02/2017 – 12/2018)

Ericsson Research Foundation grant (05/2019)

Master thesis grant from CWC, University of Oulu (2013)

Trainee grant award from CWC, University of Oulu (2012)

## LANGUAGES

Persian



English



Swedish



Finnish



## INTERESTS

Cross-fit

Hiking

Travelling

Gardening