

Two Research Assistants for M.Sc. thesis projects in  
Machine Learning for 6G subnetworks  
Aalto University

Direct Link: <https://www.AcademicKeys.com/r?job=249014>

Downloaded On: Nov. 19, 2024 3:29pm

Posted Nov. 18, 2024, set to expire Mar. 20, 2025

<b>Job Title</b>	Two Research Assistants for M.Sc. thesis projects in Machine Learning for 6G subnetworks
<b>Department</b>	T412 Department of Information and Communications Engineering
<b>Institution</b>	Aalto University , , Finland
<b>Date Posted</b>	Nov. 18, 2024
<b>Application Deadline</b>	Open until filled
<b>Position Start Date</b>	Available immediately
<b>Job Categories</b>	Professional Staff
<b>Academic Field(s)</b>	Engineering - Other
<b>Job Website</b>	<a href="https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Two-Research-Assistants-for-MSc-thesis-projects-in-Machine-Learning-for-6G-subnetworks_R41443">https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Two-Research-Assistants-for-MSc-thesis-projects-in-Machine-Learning-for-6G-subnetworks_R41443</a>

**Apply By Email**

**Job Description**

Aalto University is where science and art meet technology and business. We shape a sustainable future by making research breakthroughs in and across our disciplines, sparking the game changers of tomorrow and creating novel solutions to major global challenges. Our community is made up of 13 000 students, 400 professors and close to 4 500 other faculty and staff working on our dynamic campus in Espoo, Greater Helsinki, Finland. Diversity is part of who we are, and we actively work to ensure our community's diversity and inclusiveness. This is why we warmly encourage qualified candidates from all backgrounds to join our community.

We are now looking for

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### Two Research Assistants for M.Sc. thesis projects in Machine Learning for 6G subnetworks

In these positions you will have a chance to make an impact by developing novel concepts for managing mobile subnetworks of an umbrella 6G network. In the project you will learn to combine machine learning with 6G wireless networking, being in the forefront in combining two of the most important contemporary technology research trends.

#### Your role and goals

You will be working on applying reinforcement learning to manage network resources in sub-networks. There are multiple sub-networks, each independently controlled by a respective agent, with all other subnetworks creating interference to the subnetwork of interest. The topic of the first thesis is autonomous sub-channel selection. The other thesis is on jamming avoidance, where some of the other agents are malicious jammers. The objective is to perform the research leading to an M.Sc. thesis and to write the thesis during the thesis project duration.

#### Your network and team

The positions are in the Communication Theory Research group led by Prof. O. Tirkkonen, at the Department of Information and Communications Engineering of Aalto School of Electrical Engineering. The research group has a long experience in industrially relevant research pushing the boundaries of physical layer wireless communications systems.

#### Your experience and ambitions

Required qualifications: \* Studying in an Aalto engineering M.Sc. program \* Understanding of the fundamentals of wireless communications \* Understanding of the fundamentals of machine learning \* Good analytical, programming and problem-solving skills \* Good written and oral communication skills in English. Finnish language is not required.

#### What we offer

You have the possibility to graduate as an M.Sc. in the rapidly progressing field of AI/ML for wireless communications, with cross-domain fertilization guaranteeing both scientific relevance and industrial applicability.

The thesis project duration is six months. The salary of a Master thesis worker is 2500 EUR/month. The planned starting date is Jan 2, 2025. The workplace is at the premises of the department in Otaniemi.

To apply, please share the following application materials with us through our recruitment site (&#34;Apply now!"). \* Brief cover letter (max two pages). \* CV (max four pages) with a list of

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publications, if any. \* Academic transcripts of your B.Sc and M.Sc. studies

by Dec 8, 2024. We will go through applications, and we may invite suitable candidates to interview already during the application period. You will hear from us the latest in the middle of December 2024.

Please note: Aalto University's employees should apply for the position via our internal HR system Workday (Internal Jobs) by using their existing Workday user account (not via the external webpage for open positions).

For more information regarding the open position, please contact Professor Olav Tirkkonen ([\[url=mailto:olav.tirkkonen@aalto.fi\]](mailto:olav.tirkkonen@aalto.fi)olav.tirkkonen@aalto.fi). In any recruitment process related questions, please contact HR Advisor Monika Mäkinen ([\[url=mailto:hr-elec@aalto.fi\]](mailto:hr-elec@aalto.fi)hr-elec@aalto.fi).

Want to know more about us and your future colleagues? You can watch these videos: [\[url=https://www.youtube.com/watch?v=5k\\_og\\_6zUJQ\]](https://www.youtube.com/watch?v=5k_og_6zUJQ)Aalto University - Towards a better world, [\[url=https://www.youtube.com/watch?v=dUfEGVM-ZP8&feature=youtu.be\]](https://www.youtube.com/watch?v=dUfEGVM-ZP8&feature=youtu.be)Aalto People , and [\[url=https://www.youtube.com/watch?v=ZK6pDWm1\\_CE\]](https://www.youtube.com/watch?v=ZK6pDWm1_CE)Shaping a Sustainable Future. Read more about working at Aalto: [\[url=https://www.aalto.fi/en/careers-at-aalto\]](https://www.aalto.fi/en/careers-at-aalto)<https://www.aalto.fi/en/careers-at-aalto>

Check out our new virtual campus experience: [\[url=https://virtualltour.aalto.fi/\]](https://virtualltour.aalto.fi/)<https://virtualltour.aalto.fi/>

#### About Finland

Finland is a great place for living with or without family - it is a safe, politically stable and well-organized Nordic society. Finland is consistently ranked high in quality of life and was just listed again as the happiest country in the world: [\[url=https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/\]](https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/)<https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/>. For more information about living in Finland: [\[url=https://www.aalto.fi/en/careers-at-aalto/for-international-staff\]](https://www.aalto.fi/en/careers-at-aalto/for-international-staff)<https://www.aalto.fi/en/careers-at-aalto/for-international-staff> .

#### Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

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