Doctoral Researcher for Industrial Metaverse
Aalto University

Job Title	Doctoral Researcher for Industrial Metaverse
Department	T212 Mechanical Engineering
Institution	Aalto University
	, , Finland
Date Posted	Mar. 4, 2024
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Graduate Student
Academic Field(s)	Mechanical Engineering
	Industrial & Systems Engineering
Job Website	https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Doctoral-Reseracher-for-Industrial-Metaverse_R38929
Apply By Email	

Job Description

Aalto University is a community of bold thinkers where science and art meet technology and business. We are committed to identifying and solving grand societal challenges and building an innovative future. Aalto University has been ranked the 9th best young university in the world (Top 50 under 50, QS 2018) and one of the world's top technology challenger universities (THE 2017), for its outside-the-box thinking on research collaboration, funding and innovation. Aalto has six schools with nearly 11 000 students and 4000 employees of whom close to 400 are professors. Our main campus is located in Espoo, capital area of Finland. Doctoral Researcher for Industrial Metaverse

Are you interested in taking a deep dive into metaverse technologies and doing impactful research in collaboration with the Finnish industry?

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DigiTwin Lab is looking for a Doctoral Researcher for an industry-university collaboration project that investigates the application of metaverse in industrial settings. More specifically, the research investigates indoor positioning methods, industrial information integration with OPC UA, large-language models and artificial intelligence in maintenance, and Metaverse environment development.

For this position, a strong background in programming is required, as well as the ability to learn new technologies quickly. Furthermore, an understanding of development with game engines, such as Unity or Unreal Engine, industrial protocols and communication, web programming, and data modeling are beneficial for this position.

Your role and goals
As a doctoral researcher, your main task is to conduct research and write publications about industrial metaverse topics. You will be working as a part of a research group consisting of young talents working on the same topic areas. During your Doctoral Studies, we are expecting you to write four journal articles as a first writer and collaborate with your fellow researchers.

In addition to research, doctoral researchers are expected to participate in teaching, for example, by instructing B.Sc. or M.Sc. theses or working as a teaching assistant for mechatronics courses.

Your experience and ambitions
M.Sc. in electrical engineering, mechanical engineering, computer science, or relevant fields. * Excellent programming skills, like C++, C#, Java, and Python * Experience from the following technologies is considered an advantage: * Skills related to CAD, CAE, or CAM, like Siemens NX, SolidWorks, CATIA * Machine Learning or large language models * Industrial Protocol, like OPC UA, MQTT, AMQP * IoT technologies, like sensors, microcontrollers, databases * Game Engine, like Unreal, Unity, or Omniverse * Problem-solving capabilities, responsibility, teamwork, and good communication skills.

The accepted candidate must apply to the Doctoral Program of the School of Engineering Sciences. More information from:
[url=https://www.aalto.fi/en/study-options/aalto-doctoral-programme-in-engineering]https://www.aalto.fi/en/study-options/aalto-doctoral-programme-in-engineering

Language requirements
English: Excellent proficiency (minimum B2 level).
Finnish: Finnish proficiency is considered an advantage.

What we offer * Full-time employment for the duration of the doctoral studies. At the School of

Engineering Sciences, it is common practice to initially make a work contract for two years, which is then extended for another two years after a successful mid-term review. * The starting salary for a doctoral researcher is approximately €2700 per month (gross), and it increases as research and studies progress. * Opportunity to work in a supporting environment encouraging curiosity and critical thinking * Possibility for self-development and personal growth * Access to great prototyping facilities in Aalto Industrial Internet Campus * Focus predominantly on your research * Occupational healthcare

You will be working in the DigiTwin Lab at Otaniemi Campus. We offer excellent facilities for prototyping in a realistic industrial environment as a part of Aalto Industrial Internet Campus facilities (see: [url=https://www.aalto.fi/en/aiic]https://www.aalto.fi/en/aiic). DigiTwin Lab is a part of Mechatronics Group, which conducts world-class research in the areas of rotating machinery, autonomous mobility, hydraulics, and digitalization of industry. More information on Mechatronics group can be found on: [url=https://www.aalto.fi/en/department-of-mechanical-engineering/mechatronics]https://www.aalto.fi/en/department-of-mechanical-engineering/mechatronics. Furthermore, see DigiTwin Lab web page for the DigiTwin Lab's focus areas: [url=https://www.aalto.fi/en/aiic/digitwin]https://www.aalto.fi/en/aiic/digitwin

Join us!
For your application, please include the following documents: * Motivation letter (maximum one page) * Curriculum Vitae and other proofs of scientific activity (publications, conference papers, etc.) * Certified copy of the Master's degree certificate and an official transcript of records * Abstract or summary of the Master's thesis * Any other supporting documents, such as letters of recommendation * Proof of Finnish, Swedish, or English language proficiency if the applicant is not a native speaker of these languages (see [url=https://into.aalto.fi/display/endoctoraleng/Application+instructions#Applicationinstructions-LanguagerequirementsLanguagerequirements]https://into.aalto.fi/display/endoctoraleng/Application+instru LanguagerequirementsLanguagerequirements)

All materials must be submitted in Finnish or English. You may also apply if you are still in the process of writing your Master's thesis. In this case, clearly indicate it in your application.

The deadline for applications is March 17th, 2024, at 23:59 Finnish time (UTC +2). Aalto University reserves the right for justified reasons to leave the position open, to extend the application period, reopen the application process, and to consider candidates who have not submitted applications during the application period.

Please note: Aalto University's employees and visitors should apply for the position via the internal HR system Workday (Internal Jobs ->Find Jobs) by using their existing Workday user account.

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We may invite suitable candidates to interview already during the application period. You will hear from us the latest in the last week of March. We aim to have a transparent and equal recruitment process, so feel free to ask us for feedback.

Contact for more information:
Riku Ala-Laurinaho, [url=mailto:riku.ala-laurinaho@aalto.fi]riku.ala-laurinaho@aalto.fi p. +358503477649. For questions related to the recruitment process, please contact HR Advisor Paula Thomsson-Levä [url=mailto:paula.thomsson-leva@aalto.fi]paula.thomsson-leva@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/ . For more information about living in Finland: [url=https://www.aalto.fi/services/about-finland]https://www.aalto.fi/services/about-finland & [url=https://www.aalto.fi/en/services/welcome-to-aalto-university-and-finland-info-package]https://www.aalto.fi/en/services/welcome-to-aalto-university-and-finland-info-package

About Aalto University

Want to know more about the Aalto Community? You can watch these videos: Aalto University - Towards a better world, Aalto People , and 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

Check out our new virtual campus experience: virtualtour.aalto.fi/

Aalto University on the web:

aalto.fi
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Aalto University has been awarded with HR Excellence in Research quality label in European Commission, guaranteeing that we adhere to top quality HR practices in both recruitment and employment relations.

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Contact Information

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

Contact

Finland