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## Computational Physicist Game Design Student

### WHO AM I?

A 27 year old computational physicist who recently defended his doctoral dissertation regarding radiation damage in high entropy alloys in the context of future nuclear reactor materials. Currently studying game design and production at Aalto University, with the goal of taking part in the creation of the next generation classics of games.



### EXPERIENCE

- 2021 – **Research Assistant** Aalto University  
Working on research experience projects (REPs) alongside my studies in Game Design and Production. The first REP during autumn involved a short literature review and independent experimentation regarding world data utilization in virtual landscape generation. For the current REP I have moved to graphics programming, a new but exciting field to me.  
Graphics / Unity / Real World Data / Python
- 2019 – 2021 **Doctoral Researcher** University of Helsinki  
Computational research of irradiation damage in high entropy alloys for fusion reactor applications. The work included running computationally intensive molecular dynamics irradiation simulations, analyzing irradiation damage in simulated samples, publishing results via peer-reviewed articles in journals related to the field, and teaching.  
Molecular Dynamics / OVITO / Linux / Python
- 2015 – 2019 **Research Assistant** University of Helsinki  
Computational research of irradiation damage in high entropy alloys for fusion reactor applications.  
Molecular Dynamics / OVITO / Linux / Python
- 2014 **Museum Guard** Rilaxmonumentets traditionsförening r.f.  
Guarded and gave guided tours of an exhibit honouring the 300th anniversary of a naval battle fought in the Gulf of Finland.  
Guarding / Guiding / Customer service

### EDUCATION

- 2019 – 2022 **Doctoral Degree** University of Helsinki  
Doctoral Programme in Materials Research and Nanoscience
- 2017 – 2019 **Master's Degree** University of Helsinki  
Master's Programme in Materials Research  
Line: Computational Material Physics
- 2014 – 2017 **Bachelor's Degree** University of Helsinki  
Degree Programme in Physical Sciences  
Major: Theoretical Physics

## TEACHING

2017 – 2019	<b>Teaching Assistant</b> Mathematics for Physicists I Basics of vector calculus, power series, differential calculus, integral calculus	University of Helsinki
2017 – 2019	<b>Teaching Assistant</b> Mathematics for Physicists II Complex numbers, ordinary differential equations, vector calculus	University of Helsinki
2018 – 2021	<b>Teaching Assistant</b> Mathematics for Physicists III Linear algebra, vector calculus	University of Helsinki

## INTERNATIONAL EXPERIENCE

2019	<b>ICFRM 2019</b> International conference on fusion reactor materials Poster presentation	San Diego
2014 – 2015	<b>Lancaster University</b> First year BSc physics studies.	Lancaster

## PUBLICATIONS

- [1] Levo, E. (2022). Radiation Damage in High Entropy Alloys. University of Helsinki.
- [2] Levo, E., Granberg, F., Utt, D., Albe, K., Nordlund, K., Djurabekova, F. (2019). Radiation stability of nanocrystalline single-phase multicomponent alloys. Journal of Materials Research.
- [3] Levo, E., Granberg, F., Fridlund, C., Nordlund, K., Djurabekova, F. (2017). Radiation damage buildup and dislocation evolution in Ni and equiatomic multicomponent Ni-based alloys. Journal of Nuclear Materials, 490, 323-332.
- [4] Granberg, F., Djurabekova, F., Levo, E., Nordlund, K. (2017). Damage buildup and edge dislocation mobility in equiatomic multicomponent alloys. Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, 393, 114-117.

## AWARDS

2019	<b>Runner-up for Best Scientific Poster</b>	De Finlandssvenska Fysik- och Kemidagarna
2017	<b>Best Scientific Poster</b>	De Finlandssvenska Fysik- och Kemidagarna

## REFERENCES

<b>Prof. Kai Nordlund</b> Supervising professor of doctoral studies Email: kai.nordlund@helsinki.fi Mobile: +358-40-5562806	University of Helsinki
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## LANGUAGES

**Swedish** - native  
**Finnish** - native  
**English** - excellent

## HOBBIES

If not working, or studying, one can most certainly find me at the gym, playing games, cooking, writing my book, or planning my future winery.

## MILITARY SERVICE

Served as a conscript in the Finnish Defence Forces for a year. Underwent non-commissioned officer training and gained valuable leadership skills.