Emil Levo

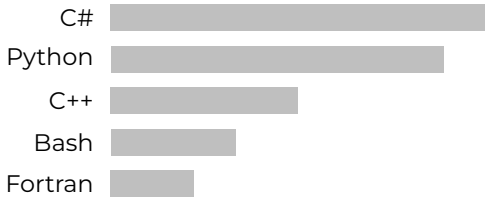
Game Programmer
Computational Physicist

Helsinki, Finland
+358504327638
emil.levo@outlook.com
linkedin.com/in/emil-levo
github.com/CurlyNikolai
curlynikolai.github.io

Who Am I?

A 27 year old doctor in computational physics, now turned to game programming. Currently studying Game Design and Production at Aalto University. My main areas of interest include gameplay programming, graphics programming and high performance computing.

Programming



Game Engines

Unity
UE

Other Tools

Linux
Windows
LaTeX
Office
Git

Experience

2022 – **Game Programmer** — **Heroic Games**
`Unity / C# / Shader Graph / Quantum - Photon Engine`

2021 – 2022 **Research Assistant** — **Aalto University**
Research experience projects (REPs) alongside my studies in Game Design and Production. The first REP was a study of real world geographical data usage in video games. The second REP was a study of the effect anisotropic filtering parameters had on individual pixel colours in an image.
`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

2021 – **Master's Degree** — **Aalto University**
Master's Programme in Computer, Communication and Information Sciences
Major: Game Design and Production

2019 – 2022 **Doctoral Degree** — **University of Helsinki**
Doctoral Progamme 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 **Teaching Assistant** **University of Helsinki**
Mathematics for Physicists I
Basics of vector calculus, power series, differential calculus, integral calculus

2017 – 2019 **Teaching Assistant** **University of Helsinki**
Mathematics for Physicists II
Complex numbers, ordinary differential equations, vector calculus

2018 – 2021 **Teaching Assistant** **University of Helsinki**
Mathematics for Physicists III
Linear algebra, vector calculus

International Experience

2019 **ICFRM 2019** **San Diego**
International conference on fusion reactor materials
Poster presentation

2014 – 2015 **Lancaster University** **Lancaster**
First year BSc physics studies.

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.

References

Prof. Kai Nordlund **University of Helsinki**
Supervising professor of doctoral studies
Email: kai.nordlund@helsinki.fi
Mobile: +358-40-5562806

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.