



Oline A. Ranum

Informatics Institute
University of Amsterdam (UvA)
Science Park 904, 1098 XH Amsterdam, Netherlands

(+47) 950 46 897
oline.ranum@student.uva.nl
GitHub: [OlineRanum](#)

- Pursuing a Master's degree in **Artificial Intelligence** with 1 year of dedicated study and research.
- 5 years of **physics** education, including internships at the renowned institutions **CERN** and **LBNL**.
- **Founder** of **DeepSign AS** and BliFlink.org, the former recognized with the STUD-ENT grant of EUR 100,000.
- Committed to shaping a warmer future for AI by developing **assistive tools for disabled communities**.

Education

University of Amsterdam (UvA), Netherlands

<i>MSc</i> Artificial Intelligence 60 EC	2022 - 2024
• Relevant coursework: Deep Learning, Computer Vision, Natural language processing	
<i>MSc</i> Astroparticle and Gravitational Physics 54 EC	2020 - 2021
• Relevant coursework: Entrepreneurship	

University of Oslo (UiO), Norway

<i>BSc</i> Physics and Astronomy 210 EC	2016 - 2020
• Relevant coursework: Computational physics, Undergraduate Research	
<i>BSc</i> International Relations 60 EC	2015 - 2016

University of California, Berkeley (UCB), USA

• Relevant coursework: Astronomy data science laboratory	
<i>Study abroad</i> 30 EC	2019

Stellenbosch University, South Africa

<i>Summer School:</i> Advanced Nuclear Reactions and Applications in Astrophysics 5 EC	2019
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Research

DeepSign AS, Oslo, Norway

<i>Project:</i> Sign language processors for Norwegian and Norwegian sign language	2022
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University of Amsterdam, Netherlands

<i>Research project deep learning:</i> SO-3 Equivariant Neural Rendering	2023
<i>Research project computer vision:</i> Steerable 3D diffusion with attention maps	2023

CERN, Geneva, Switzerland

Technical internship experimental physics, AE \bar{g} IS group 2020

- Building software for analysis of particle reactions and fiber calibration

Independent research, AE \bar{g} IS group 2019

- Analysis of positronium production using an annihilation cryogenic tracker

University of California, Berkeley, USA

Research project, Lawrence Berkeley National Lab (LBNL), Bernstein Group 2019

- Detector calibration, analysis of Yt86 production rates

Research Project, Berkeley Astrophysical Institute 2019

- Classifying white dwarf spectra with the Cannon model

University of Oslo, Norway

Research assistant in experimental physics supervised by Arnt Inge Vistnes 2018

- Developing motion detection systems and associated lab exercises

Experience**CEO & Founder at DeepSign AS**, Oslo, Norway

Jan. 2021 - Jan. 2022

- Strategy, management, finances, sales, team development, product development
- Accelerators: ACE Fall Cohort 2022 and Demonstrator Lab SP
- Media Coverage: Titan.uio.no, Argument.no

CTO & Founder at BliFlink, Oslo, Norway

Mar. 2020 - Mar. 2022

- Developed a platform for free online tutoring during COVID-19
- Management, implementation, product development

Laboratory Instructor - Tutor, UiO, Norway

2018

- Developed laboratory assignments and software for undergraduate education
- Instructor in experimental physics and chaotic systems

Achievements**Grants Received**

STUD-ENT Grant EUR 100,000, Norwegian Research Council, The DeepSign Project

April 2021

Publications

1. Hu, A., Ranum, O., Pozrikidou, C., & Zhou, M. (2023). *Reproducibility study of "Joint Multisided Exposure Fairness for Recommendation."* ML Reproducibility Challenge 2022. openreview.net/forum?id=A0Sjs3IJWb
2. Rienäcker, B., Brusa, R. S., Caravita, R., Mariazzi, S., Penasa, L., Pino, F., Ranum, O. A., & Nebbia, G. (2022). *A fiber detector to monitor ortho-Ps formation and decay.* Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1027, 166275. [sciedirect.com/science/article/pii/S0168900221011062](https://www.sciencedirect.com/science/article/pii/S0168900221011062)

Invited Talks

"Diagnosing positronium using the fast annihilation cryogenic tracker of AE \bar{g} IS at CERN"

- AE \bar{g} IS Collaboration Meeting, CERN, Switzerland

24.10.2019

- INTPART Summer School, Witwatersrand University, South Africa

30.11.2019

"Student entrepreneurship in times of crisis"

- University of Oslo - "A New Beginning", UiO, Norway

31.08.2021

Academic Responsibilities

Physics Student Council - Student Representative, UiO, Norway

- Board of Education 2017 - 2018
- Institute Board and Master's Degree Board 2018

Physics Discussion Groups, UiO, Norway

- Establishing and Operating Discussion Groups in Physics 2018

IAESTE - International Association for the Exchange of Students for Technical Experience, UiO, Norway 2017-2018

- Event Manager and Organizer of IAESTE's Career Fair, Representative

The Realist Union, UiO, Norway

- Event Manager and Volunteer 2016 - 2018

SAIH - Students and Academics International Help Foundation, UiO, Norway

- Representative 2015

Skills

Programming Python (8 years), C++ (2 years), Matlab (4 years), SQL (1 year), Front-end (CSS, HTML)

Languages Norwegian (Native), English (Fluent), Norwegian Sign Language (Good)

References

Stefan Haider, Technical Coordinator AEgIS Experiment at CERN

References available upon request

Benjamin Rienäcker, Researcher AEgIS Experiment at CERN

References available upon request

Daniel Weisz, Associate Professor of Astronomy at the University of California, Berkeley

References available upon request

Lee Bernstein, Head of the Nuclear Data Group at LBNL

References available upon request

Andrew Voyles, Research Scientist at LBNL

References available upon request

Alexander Lincoln Reed, Professor in High-Energy Physics at UiO

References available upon request

Arnt Inge Vistnes, Associate Professor at the UiO

References available upon request

December 22, 2023