# Ómar Bessi Ómarsson

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#### **Personal Profile**

A motivated and ambitious Computer Science undergraduate with a keen interest in attaining a Master's in Machine Learning and Machine Intelligence. Teaching Assistant in Calculus, Discrete Mathematics, and Algorithms. Recipient of a summer research grant, conducting work on Neural Architecture Search for Signal Processing. Ranked among the top 2% of my cohort with an average grade of 9.30, I bring both academic excellence and practical research experience.

#### **Education**

## University of Reykjavik, BSc in Computer Science

Aug 2023 - May 2026

- Current average grade: 9.3/10
- Relevant Modules: Linear Algebra, Calculus for Computer Science, Applied Statistics and Introduction to Data Science, Artificial Intelligence, Machine Learning

## **Research Experience**

#### Neural Architecture Search Researcher, Reykjavík University

Summer 2025

- Conducted research on optimizing ensemble model architectures for biosignal-based sleep stage classification using Neural Architecture Search (genetic algorithms).
- Designed and implemented evolutionary algorithms for optimizing 1D CNN architectures, focusing on kernel size selection.
- Explored multiple evolutionary strategies, including Age-Layered Population Structure (ALPS), and independently developed novel optimization ideas.
- Strengthened abilities in independent research, algorithm design, and technical problem-solving.

## **Additional Experience**

#### Teaching Assistant, Reykjavík University

2024 - Present

- Teaching Assistant for Calculus, Discrete Mathematics, and Algorithms, reinforcing subject expertise.
- Guided and supported students, strengthening leadership and communication skills.

### **Relevant Research Skills**

- Proficient in Python for data analysis, algorithm design, and research prototyping.
- Rapid learner, able to assimilate new theoretical concepts and apply them effectively in practice.
- Strong attention to detail in mathematical reasoning and formal problem solving.

## **Achievements and Funding**

- Awarded a research grant from Rannís *Nýsköpunarsjóður námsmanna* (Student Innovation Fund, approx. £6000) to conduct summer research on Neural Architecture Search for signal processing.
- Named to the Dean's List (Fall 2024) for academic excellence.

#### References

- María Óskarsdóttir University of Southampton M.Oskarsdottir@soton.ac.uk
- Szabolcs Horvát Reykjavík University szabolcsh@ru.is
- Emil Harðarson Reykjavík University emilh@ru.is