

Snorri Bjarkason

+00 354 696-4972 | snorribjarka@gmail.com | snorribjarkason.com/ | github.com/snorribja/Snorri/

EDUCATION

Reykjavik University

B.S. in Software Engineering – GPA: 9.07/10 (First Class with Distinction)

Reykjavik, Iceland

Jun 2025

RESEARCH INTERESTS

Machine learning, representation learning, deep learning for physiological signals, time-series modeling, and applied AI in healthcare.

PROFESSIONAL EXPERIENCE

Nox Medical

Research Engineer

Reykjavik, Iceland

Jul 2025 – Present

- Conduct applied research in sleep diagnostics, focusing on AI- and ML-driven signal analysis for EEG, ECG, and respiratory data.
- Developed and evaluated deep learning models (CNNs, ResNets) to improve automated scoring accuracy.
- Developed a scalable AWS-based batch-processing pipeline that reduced dataset turnaround time for key opinion leaders from ~2 weeks to ~3 hours using Nox's scoring AI.
- Led a validation study assessing the impact of nasal cannula replacement on AI scoring accuracy, applying advanced signal processing and statistical methods.
- Serve as Scrum Master for the research team, coordinating sprint planning, task management, and research project delivery.
- Contribute to scientific manuscripts and technical documentation for ongoing research papers and technical reports.
- Deliver presentations to visiting student groups, showcasing Nox's research, technologies, and clinical applications.

VÍS Insurance Inc.

Software Developer (formerly Intern)

Reykjavik, Iceland

Jan 2024 – Jun 2025

- Promoted from internship to continued engineering role after demonstrating strong technical performance and initiative.
- Engineered data-driven backend systems to support algorithmic research in insurance risk modeling.
- Designed and implemented fraud-prevention mechanisms for the Pay-As-You-Drive program, reducing system misuse.
- Built data integration APIs to connect internal systems and deliver actionable insights across business units.
- Utilized advanced SQL queries to extract and process complex datasets for data-driven decision making.

Reykjavík University (RU)

Teaching Assistant – Operating Systems & Python Programming

Reykjavik, Iceland

Aug 2023 – May 2025

- Assisted instructors in delivering lectures, labs, and coursework for Operating Systems (200 students) and Python Programming (280 students).
- Guided lab sessions, reviewed assignments, and provided detailed feedback on student code and projects.
- Contributed to grading, code reviews, and the development of supplemental learning materials.

ACADEMIC PROJECTS AND RESEARCH ACTIVITIES

Advanced Respiratory Inductance Plethysmography Technology Review

Scientific Paper – First Author, in collaboration with Nox Medical

Aug 2025 – Present

- Authoring a review on Respiratory Inductance Plethysmography (RIP) technology, examining its physiological basis, clinical applications, and role in modern sleep diagnostics.
- Analyzes current standards for respiratory measurement and highlights limitations in existing airflow and effort sensing methods.
- Discusses RIP's technical principles, calibration strategies, and signal processing methods, emphasizing the physiological validity of inductance-based effort and flow estimation.
- Reviewing clinical evidence comparing RIP to traditional airflow sensors for apnea-hypopnea detection and event differentiation.
- Advocates for reclassification of RIP as a core technology in sleep medicine, supporting its integration into diagnostic scoring and next-generation digital health systems.
- Paper currently in writing and internal peer review phase, planned submission to Current Pulmonology Reports upon completion.

Defend Iceland – Automated Attack Surface Mapping (AASM)

BSc. Final Project.

Jan 2025 – May 2025

- Developed an automated attack-surface mapping system to identify and visualize organizations' internet-facing assets (domains, subdomains, endpoints, IPs).

- Built a containerized microservice architecture using Docker, FastAPI, Redis, Celery, and PostgreSQL to enable large-scale, asynchronous network scanning.
- Designed a custom discovery engine integrating multiple open-source tools for domain, endpoint, and vulnerability enumeration.
- Applied machine-learning and adaptive fuzzing methods to predict hidden assets and enhance discovery coverage.
- Introduced Icelandic-language support and localized data handling, improving accuracy for national organizations.
- Conducted in collaboration with Defend Iceland, bridging academic research with national cybersecurity applications.
- Published in Skemman, Iceland's national open-access digital repository: <hdl.handle.net/1946/50482>

TECHNICAL SKILLS

Languages: Python, C/C++, Java, Go, R, SQL, PL/SQL

ML & Data Analysis: TensorFlow, Keras, Scikit-learn, NumPy, Pandas, Matplotlib, Seaborn

Systems & Tools: Docker, AWS, PostgreSQL, Oracle, Git, Jenkins

EXTRACURRICULAR ACTIVITIES

Freelance and Volunteer Web Development

Jun 2025 – Present

- Developed responsive websites for small local businesses free of charge to improve their online presence.

Programming Competitions

Oct 2022 – Present

- Competed in the Nordic Collegiate Programming Contest (NCPC) and other algorithmic challenges focused on problem-solving and optimization.

Electoral Subcommittee Member

Sep 2021 – Present

- Serve on an electoral subcommittee for presidential, government, and municipal elections.

Mathematics and Programming Tutoring

Oct 2019 – May 2025

- Provide tutoring in mathematics and programming to students from high school to university level.

Online Courses and Certifications

Oct 2021 – Jan 2025

- Completed Machine Learning Specialization by DeepLearning.AI and Stanford (Andrew Ng) on Coursera, covering supervised learning, neural networks, and advanced algorithms.
- Completed Microeconomics: When Markets Fail by University of Pennsylvania on Coursera.
- Completed The Bug Hunter's Methodology (Jason Haddix, Arcanum)

Sports Achievements – Soccer and Taekwondo

Mar 2014 – Aug 2024

- Black belt and four-year member of the Icelandic National Taekwondo Team. Multiple-time Icelandic Champion, Reykjavík International Games Champion, two-time European Championship competitor, and Nordic Champion.
- Served on the official Taekwondo Black Belt Examination Committee, assisting with candidate evaluation, test administration, and event coordination.
- Won the Icelandic Junior Soccer Championship twice and played several first division matches for the team KV.
- Volunteered as a referee and a coach in both Taekwondo and soccer.