## Shamimeh M. Nav

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Kirkegata, Moss, 1530, Norway Date of birth: 04.10.1998

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### Key Qualifications / Nøkkelkvalifikasjoner

Analytical, adaptable, and detail-oriented AI professional with expertise in Python, ML, and DL. Strong communicator, problem-solver, and team collaborator. Multilingual, with the ability to thrive in global and interdisciplinary teams. Passionate about applying cutting-edge AI solutions in Norway's tech industry to drive innovation and long-term impact.

### **Education / Utdanning**

August 2023 - June 2025

Oslo Metropolitan University, Oslo, Norway

MSc ACIT - Applied Artificial Intelligence

Specializing in advanced AI techniques and interdisciplinary applications. Key modules include Advanced ML and DL, Computational Intelligence, ML for Images and 3D Data, Projects in Human-Computer Interaction, Evolutionary AI and robotics, Digital Signal and Image Processing. **Master's Thesis**: Exploring the Reliability of EEG and Eye-Tracking for Biometric Authentication:

Strengths, Limitations, and Multimodal Benefits

Investigated the strengths and limitations of EEG and eye-tracking signals for biometric authentication, and developed hybrid models to evaluate the benefits of combining modalities.

Sep. 2017 – March 2022

University of Isfahan, Isfahan, Iran

Bachelor's degree, Computer Science

Covered core computer science topics such as programming in C++ and Python, logic, algorithms, and networks.

# **Key Projects / Viktige Prosjekter**

- Developed and evaluated EEG-based, eye-tracking-based, and hybrid biometric authentication models, using ML and DL techniques, for master's thesis. Conducted a comparative analysis by implementing different classification models, including GaussianNB, Linear & Ridge Regression, Lasso, ElasticNet, Gradient Boost, AdaBoost, and XGBoost, alongside DL architectures such as CNN, EEGNet, InceptionTime, PyramidalCNN, and Xception. Assessed modality-specific and multimodal performance to optimize reliability and feasibility in biometric authentication systems.
- Developed pipelines using Neural Radiance Fields for 3D geometry reconstruction, integrating PyTorch3D, Open3D, and Chamfer Distance evaluation.
- Developed an Al-driven mobile app for promoting healthy habits in children with customizable avatars, activity tracking, and gamified tools, utilizing HTML, CSS, JavaScript, and Azure SQL, validated through user feedback and participatory design.
- o Developed an **Al-driven psychology support platform using LLama**, designed to provide real-time advice in Norwegian. Built and presented during Meta Hackathon (Feb 2025), showcasing Al-driven mental health assistance.
- Developed Super-Resolution models for pathology images, including ESRGAN and EDSR, enhancing image quality
  for improved analysis and diagnostics. Applied Fuzzy systems to breast cancer datasets, with ID3, Random Forest,
  and ROC analysis, building classification models for predictive analytics and decision support.
- o Implemented **Evolutionary Algorithms**, including Genetic Algorithms, Bees Algorithm, Particle Swarm, and Ant Colony Optimization, for N-Queen and Travelling Salesman Problems.
- Applied Decision Tree algorithms for Vehicle Evaluation and K-means clustering for AT&T database analysis.
- Applied advanced data processing techniques on house rental offers and diabetes datasets including data normalization, PCA, KNN, K-fold Cross Validation, and Comprehensive model evaluation.
- O Developed **object detection models** using YOLO and OpenCV for image processing for Bachelor's Project. Using CUDA for performance optimization, worked with unlabeled data, and utilized Git for version control.

### **Work Experience / Arbeidserfaring**

Aug. 2025 – Present Al Developer Intern, Full-time, SOMEBODYMAKEIT AS, Oslo, Norway

March 2024 – July 2025 Research Assistant, Part-time, Oslo Metropolitan University, Oslo, Norway

Collected and managed data for the eye-gaze project, focusing on eye sensors and eye movements. Ensured optimal experiment conditions, calibrated equipment, and maintained dataset accuracy. Increased participant enrolment by 176%, significantly improving data robustness. Secured a strong follow-up rate, ensuring high participant retention for subsequent studies.

Aug. 2024 – Dec. 2024 Teacher Assistant, Part time, Oslo Metropolitan University, Oslo, Norway

Taught lab sessions for the Evolutionary Artificial Intelligence and Robotics course.

Jan. 2020 – July 2023 Co-owner, Entrepreneur, and Marketing Manager, Gavazne Abi, Rasht-Isfahan, Iran

Co-managed a small business in Iran, driving social media growth and online sales through targeted marketing strategies. Led initiatives that doubled sales, developed engaging content for social media platforms, and played a pivotal role in brand positioning and digital outreach.

#### April 2020 - Nov. 2020 Freelance Content Writer and Translator, Isfahan, Iran

Provided creative content writing and translation services for various clients. Developed writing skills in different fields, meeting deadlines and maintaining high quality content.

Sept. 2019 – July 2020 Lab Assistant, Part-time, University of Isfahan, Isfahan, Iran

Maintained and updated department labs' computers and electronic devices. Installed and troubleshot software as required by the department's teachers and staff.

### **Skills & Courses / Ferdigheter og Kurs**

#### **Courses & Certifications**

Introduction to Machine Learning - Duke University

Neural Networks and Deep Learning - DeepLearning.Al

Improving Deep NN: Hyperparameter Tuning, Regularization and Optimization - DeepLearning.Al

Supervised Machine Learning: Regression and Classification - DeepLearning.Al

Introduction to Intel Distribution of OpenVINO toolkit for Computer Vision Applications - Intel

Introduction to Big Data with Spark and Hadoop - IBM

Intro to Managing Resources Using Infrastructure-as-Code - Codio

Network Principal (Network+) - Abolfazl Kazemi, Maktabkhooneh

**Technical Skills** Python - Pandas, NumPy, Scikit-learn, Pytorch, TensorFlow, Keras, Matplotlib, Seaborn, PySpark

Typescript, C++, HTML, JavaScript, CSS, MATLAB and Latex

Strong understanding of Machine Learning, Deep Learning and Artificial Intelligence

Familiar with MySQL, Networks, and Java

Social Media Management and Content Creation

Soft Skills Communication & Teamwork, Customer Service, Critical & Logical Thinking, Broad Knowledge &

Creativity, Cultural Awareness, Flexibility & Adaptability, Intercultural communication

## **Other Competencies / Andre Kompetanser**

**Languages** Persian (Native)

**English** (Advanced proficiency- IELTS 7.5)

Norwegian (Keen learner - A2)

**Volunteering** Buddy program for international students - OsloMet (Fall 2024 – Spring 2025)

Students' scientific association - University of Isfahan (2018-2022)

### References available upon request.