NGUYEN LUONG

Espoo, Finland • +358 44 240 4485 • nguyen.luong@aalto.fi • lknguyen.xyz
GitHub • LinkedIn

EDUCATION

Aalto University — Master of Science, Machine Learning, Data Science, Artificial Intelligence — Espoo, Finland · Aug 2018 – Jul 2021

Relevant Coursework: Statistical Learning • Bayesian Inference • ML Systems • Data Engineering • Causal Inference • Time-Series

EXPERIENCE

Doctoral Researcher — Aalto University — Espoo, Finland · Nov 2021 – Oct 2025 (expected)

- Quantify **human behavior** and **routine persistence** from smartphone and wearable **digital traces**.
- Build **statistical** and **machine-learning** models; emphasize **reproducibility** and open science.
- Engineering: modular Python packages, **CI/CD** with GitHub Actions, **Docker**, automated tests and docs.

iOS Developer — ParkMan — Helsinki, Finland · Dec 2016 – Dec 2020

- Modular codebase design: improve testability and maintainability.
- Implemented **CI/CD** pipelines (Fastlane → TestFlight), automated build/test/release; improved performance and reliability.

TECHNICAL SKILLS

Languages: Python, R, SQL, Swift
Data & ML: pandas, NumPy, **scikit-learn**, XGBoost/LightGBM/CatBoost, MLflow
Deep Learning: PyTorch, TensorFlow/Keras; CNNs, RNN/LSTM/GRU, Transformers; GPU/CUDA
Statistical Modeling: GLM/GAM, **mixed-effects**, Bayesian (Stan/PyMC), survival analysis, hypothesis testing & **FDR**
MLOps / Dev: GitHub Actions, GitLab CI, CircleCI, coverage.py/Codecov, Poetry/`pyproject.toml`, Docker, Sphinx/MkDocs
iOS: Swift/SwiftUI/UIKit, **XCTest/XCUITest**, Combine, Core Data, Fastlane, TestFlight

---

PROJECTS / PORTFOLIO

digiRhythm — Quantifying routine structure from digital traces GitHub

- Snakemake pipeline for multi-cohort experiments; YAML-driven config; reproducible runs with conda/mamba.
- Outputs behavior clusters and "signatures" with plots and reports.

Niimpy — Toolbox for behavioral data analysis GitHub

- Contributions to data processing, feature extraction, and documentation for smartphone/wearable sensor data.

SELECTED METHODS

- **Machine Learning:** supervised/unsupervised, time-series, feature engineering, model selection (grid/random/Bayesian), cross-validation.
- **Interpretability & Evaluation:** SHAP, permutation importance; ROC-AUC, PR-AUC, F1, calibration.
- **Statistical Inference:** hierarchical/mixed models, Bayesian modeling, bootstrapping, permutation tests.

LANGUAGES

Vietnamese — Native • English — Fluent