

Nam Anh Le

Undergraduate Researcher in DeFi Market Microstructure, Optimal Market Making & Statistical Modeling
namanhle.com — me@namanhle.com — +84 888 88 4048

EDUCATION

National Economics University (NEU), Hanoi, Vietnam

Sept 2022 — Expected Dec 2026

B.A. candidate, Business/Marketing and Economic Statistics, Excellent Program

GPA: 3.83/4.00, approx. top 3%

Relevant quantitative coursework: Calculus II, Linear Algebra, Probability Theory & Mathematical Statistics, Econometrics, Optimization, Data Mining

Self-study focus: stochastic control, market microstructure, numerical methods for HJB equations, DeFi market design

SELECTED RESEARCH

Funding-Aware Optimal Market Making for Perpetual DEXs2026

Working paper / arXiv, q-fin.MF [arXiv:2605.06405]

- Extended optimal market-making control to a perpetual DEX order-book setting with funding rate as a stochastic state variable.
- Implemented a finite-difference HJB solver and simulation framework for inventory-sensitive bid-ask skewing.
- Ran 100-seed holdout experiments on Hyperliquid ETH/BTC/SOL markets with scaled Avellaneda-Stoikov diagnostics.
- Conducted robustness checks under alternative fill-model calibrations and connected the mechanism to AMM liquidity-control intuition.

Systemic Fragility in Permissionless Issuance: Evidence from a Large-Scale On-Chain Natural Experiment2025

Revised and resubmitted, Digital Finance [Manuscript]

- Built a large-scale empirical design for measuring fragility and issuance dynamics in permissionless token markets.
- Combined on-chain data engineering, event-study logic, and robustness checks for market-design implications.

Opening-Gap Pass-Through from Bitcoin to ETFs: Measurement, Robustness, and Design Implications2025

Under review, International Review of Financial Analysis [Manuscript]

- Studied cross-market price transmission from Bitcoin to spot ETFs using high-frequency opening-gap measurement and robustness tests.

Decomposing Crowd Wisdom: Domain-Specific Calibration Dynamics in Prediction Markets2026

Under review, International Journal of Forecasting [arXiv:2602.19520] — Bayesian calibration of market-implied probabilities using large-scale resolved prediction-market data.

RESEARCH EXPERIENCE

Research Assistant

Hanoi, Vietnam

Applied Data Science and Artificial Intelligence Laboratory, National Economics University

Sept 2025 — Present

- Processed and standardized 10,000+ institutional records using Python and SQL, including cleaning, validation, missing-data handling, and automated statistical summaries.
- Built theory-driven analytical systems, including a macroeconomic simulation engine and a structured statistics workflow for student researchers.
- Developed reproducible data-analysis workflows from fragmented raw data to diagnostics, tables, and interpretation-ready outputs.

Research Assistant

Hanoi, Vietnam

Prof. Tho Dat Tran, National Economics University

June 2025 — Sept 2025

- Constructed a multi-year panel dataset on digitalization and economic outcomes, integrating official statistics and international indicators.
- Produced econometric diagnostics and preliminary regression tables in Stata/R for manuscript development.

Teaching Assistant

Hanoi, Vietnam

International Statistical Institute Lecture Series, Distinguished Professor Kerrie Mengersen

Nov 2025

- Supported lectures on Bayesian statistics for 60+ researchers and lecturers, including R exercises on Bayesian inference, MCMC, and Bayesian networks.

TECHNICAL PROJECTS

FromTheTrenches — fromthetrenches.io

Co-Founder & Main Developer

- Built an on-chain analytics pipeline to extract, parse, and analyze high-frequency Solana trading transactions.
- Designed wallet-level performance metrics using Sharpe, Sortino, Omega ratio, drawdown filters, and consistency screens to separate persistent skill from luck-based outliers.
- Developed signal logic for detecting accumulation patterns, momentum shifts, and anomalous trading behavior across wallet clusters.
- Shipped the system to 3,000+ subscribers and 20+ paid users, validating practical demand for the analytics pipeline.

OC — onchaincrime.app

Co-Founder & Main Developer

- Developed a real-time query application for cross-referencing token order flows against statistically filtered high-performance wallets.
- Implemented a Supabase backend for indexing historical transaction data and applying conditional filters to isolate non-random accumulation patterns.
- Reached 20,000+ total queries and 500+ unique users within the first 5 weeks of deployment.

BayesEvolve — bayesevolve.org

Founder & Developer

- Built an interactive Bayesian computation simulator covering conjugate priors, Metropolis-Hastings, Gibbs sampling, HMC, and variational inference.
- Implemented real-time canvas visualizations and KaTeX-rendered notation for stepwise statistical learning.

RESEARCH TASKS I CAN SUPPORT

- Numerical experiments, simulation grids, robustness checks, and sensitivity analysis for market-making models.
- Python implementation of finite-difference routines, calibration diagnostics, and reproducible experiment pipelines.
- DEX / CLOB / perpetuals data cleaning, feature construction, and empirical diagnostics.
- Literature notes, replication attempts, figure/table cleanup, and concise weekly technical updates.

TECHNICAL SKILLS

- Programming & Data:** Python, SQL, R, NumPy, SciPy, Pandas, DuckDB, PostgreSQL
- Numerical & Statistical Workflows:** finite-difference methods, simulation, calibration diagnostics, robustness checks, econometrics
- Market Data:** on-chain transaction data, wallet-level behavior, perpetual futures, funding rates, CLOB/DEX microstructure
- Engineering:** ETL pipelines, web scraping, Supabase, reproducible analysis workflows
- Languages:** Vietnamese native, English proficient

SELECTED AWARDS

- Academic Excellence Scholarship, National Economics University2023–2025
- Student Research Grant; Second Prize, NEU Student Scientific Research Competition2024
- Quarter-finalist, Eureka National Student Research Competition2025
- Solana State Bloat Research Bounty; Winner, Web3 BUIDL-athon: Shipping on Solana2025