

Roope Hakanpää

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PROFESSIONAL SUMMARY

Data scientist, analytics engineer, and automation specialist with 7+ years of experience in statistical modelling, machine learning, forecasting, optimisation, Python development, and operational decision-support systems. Built and maintained 50+ Python workflows, pricing algorithms, data pipelines, cloud-deployed internal applications, automated validation systems, and 40+ production dashboards. Experience combines marketplace-scale product and pricing data with federally funded research using real-time, multi-source scientific datasets across 122 National Weather Service offices.

CORE COMPETENCIES

Data Science & Machine Learning: Statistical Modelling · Predictive Modelling · Machine Learning · Forecasting · Time-Series Analysis · Probability · A/B Testing · Model Validation

Optimisation & Decision Systems: Pricing Algorithms · Inventory Optimisation · Demand Analysis · Operations Research · Anomaly Detection · Decision Support · Uncertainty Analysis

Python, Automation & Data Engineering: Python · SQL · Workflow Automation · ETL/ELT · Data Integration · REST APIs · Automated Validation · Reusable Code · Git

AI & Internal Tool Development: AI Application Testing · LLM Integration · Prompt Engineering · Next.js · Supabase · Vercel · Cloud Deployment · Requirements Definition

WORK EXPERIENCE

Lead Data Analyst - Data Science, Optimisation & Automation

SidelineSwap | Remote | 2020 – Present

- Designed and engineered end-to-end pricing algorithms and inventory optimisation systems supporting growth from 6 to 850+ retail locations and 500+ trade-in events.
- Developed and maintained 50+ Python scripts and automated workflows for modelling, forecasting, data processing, validation, web extraction, reporting, and operational decision support.
- Built reusable analytical systems and data pipelines capable of processing and validating millions of product, pricing, listing, transaction, and inventory records.
- Designed and deployed cloud-based internal analytics and quality-assurance applications using Next.js, Supabase, Vercel, REST APIs, and Git.
- Implemented automated validation, reconciliation, outlier detection, missing-data handling, historical testing, and error analysis to improve model and data reliability.
- Built 40+ production dashboards and automated reporting systems, reducing recurring analysis timelines from multiple weeks to less than one day.

Research Assistant - Operational Data Science & Decision Systems

US Department of Commerce – National Oceanic and Atmospheric Administration
Cooperative Institute for Severe and High-Impact Weather Research and Operations
Oklahoma Climatological Survey | Oklahoma City, United States | 2017 – 2021

- Integrated and analysed large-scale real-time spatiotemporal datasets from radar, satellite, surface observations, warning systems, communication systems, and historical archives.
- Developed standardised data-handling, transformation, reconciliation, validation, statistical-modelling, geospatial-analysis, and cross-system comparison frameworks.
- Designed and evaluated analytical tools and visualisations supporting probabilistic forecasting and decision making across 122 National Weather Service offices.

EDUCATION

Master of Arts – Communication | University of Oklahoma | 2019 – 2021 |

Advanced Statistical Methods · Quantitative Research Methods · Data Analytics & Visualisation · Cognitive Information Processing

Bachelor of Arts – Communication | University of Oklahoma | 2015 – 2019 |

Applied Mathematics · Risk & Crisis Communication · Intercultural Communication

Bachelor of Science – Meteorology | University of Oklahoma | 2015 – 2018 |

Boundary Layer Data Assimilation · Statistical Data Modelling · Numerical Forecasting · Spatiotemporal Data Assimilation

TECHNICAL SKILLS

Programming & Querying: Python · SQL (Advanced) · R · MATLAB · SPSS · JavaScript · HTML · CSS

Data Science & Machine Learning: Pandas · NumPy · Matplotlib · Scikit-learn · TensorFlow · Statistical Modelling · Predictive Modelling · Forecasting

AI & Automation: LLM Integration · Prompt Engineering · Prompt Evaluation · AI Output Testing · Workflow Automation · Selenium · Automated Quality Checks

Data Engineering & Quality: ETL/ELT Pipeline Development · Data Integration · RESTful APIs · Data Reconciliation · Outlier Detection · Missing-Data Handling · Git

Cloud & Internal Tools: Next.js · Supabase · Vercel · Cloud Application Deployment · Internal Analytics Applications · Quality-Assurance Tools

Data Platforms & Visualisation: Snowflake · Power BI · Tableau · Metabase · Excel (Advanced) · KNIME · GIS

LANGUAGES

English – Native

Finnish – C1

French – C2

Italian – B1