NIKOLAOS FRAGKOS

Data Science for Food & Health

✉ fragosnick@gmail.com • 📍 Wageningen, Netherlands • 🔗 fragkos-nikolaos • 🌐 nikolaosfragkos.github.io

Profile

Data Scientist specializing in AI for Agri-Food systems. I combine a foundation in Agricultural Economics with advanced Data Science (WUR) to build machine learning solutions .for secure and sustainable food supply chains. Skilled in bridging RD and digital teams to translate complex data into actionable insights.

Education

09/2023 – 09/2025	**MSc in Data Science for Food and Health** *Wageningen University & Research (WUR), Wageningen, Netherlands* **Grade:** 8.35/10 **Thesis:** Artificial Intelligence and citizen science to combat Food Fraud (9.5/10). **Coursework:** AI for Food & Health, Food Fraud & Mitigation, Consumer Behavior
09/2017 – 09/2022	**Integrated MSc in Agricultural Economics & Rural Development** *Agricultural University of Athens (AUA), Athens, Greece* **Grade:** 8.56/10 (top 5%, 3rd/128). **Thesis:** Sentiment Analysis of Review Websites: A Case Study in the Greek F&B Industry (10/10).

Professional Experience

08/2025 – Present	**Research Data Engineer — AI-Based Crop Modeling** *Artificial Intelligence Group, WUR, Wageningen, Netherlands* Engineered AI-ready data pipelines by integrating heterogeneous agricultural datasets; enhanced data quality to support predictive crop models.
03/2025 – 08/2025	**Culinary Data Analyst Intern** *Kraft Heinz, Nijmegen, Netherlands* Developed a Python-based data-driven trend analysis framework to guide R&D innovation; streamlined product-insight workflows to accelerate digital transformation initiatives.
11/2021 – 09/2023	**Research Assistant** *Informatics Lab, AUA, Athens, Greece* Designed metadata extraction methodologies and structured datasets for digital-competency resources; presented findings to stakeholders.
07/2021 – 09/2021	**Barley Operations Assistant Intern** *Athenian Brewery, Athens, Greece* Conducted statistical analysis on barley yields and generated regional yield maps.
07/2020 – 09/2020	**Subsidies' Archive Assistant** *Chios Mastic Growers Association, Chios, Greece* Managed producer databases and validated invoices to ensure subsidy compliance.

Teaching Experience

09/2024 – Present	**Teaching Assistant** *Wageningen University & Research, Netherlands* • **Courses:** Artificial Intelligence (2025 & 2026), Data Science Concepts, Programming in Python, Food Fraud. • Facilitated lab sessions, graded assignments, and provided one-on-one code troubleshooting. • Co-developed AI interview chatbots (prompt engineering) to simulate real-world scenarios for the *Food Fraud* course.

Publications

2025   **The Role of AI in Combating Food Fraud: A Systematic Literature Review**
Fragkos N., Bouzembrak Y. & Erasmus S.
Critical Reviews in Food Science and Food Safety, (Under Review)

RGB Image-Based Origin Authentication of Bananas with Convolutional Neural Networks and Citizen Science Data
Fragkos N., Bouzembrak Y., Erasmus S. & Soares F.
Food Control, (Under Review)

2024   **A Sentiment Analysis Approach for Exploring Customer Reviews of Online Food Delivery Services: A Greek Case**
Fragkos N., Liapakis A., Ntaliani M., Ntalianis F. & Costopoulou C.
Digital, 4(3), 698–709. doi:10.3390/digital4030035

2022   **Sentiment Analysis in Online Food Delivery: A Greek Case Study**
Fragkos N., Liapakis A., Costopoulou C. & Ntaliani M.
In *Proc. HAICTA 2022*

Skills

Programming & Tools: Python (Pandas, Scikit-learn, TensorFlow, Keras), R, SQL, Git, Tableau, Stata, SPSS.

Data Science & AI: Machine Learning, Deep Learning, ETL Pipelines, Statistical Modelling, Prompt Engineering, Reproducible Research.

Agri-Food Domain: AI for Food Systems, Food Fraud Detection, Precision Agriculture.

Soft Skills: Technical Writing, Cross-Functional Collaboration, Research Communication, Mentoring.

Languages

Greek (Native) • **English** (C2) • **French** (C1) • **Spanish** (A2) • **Dutch** (A1)

Honors & Awards

2023   **3rd Place — Data Factory XR Hackathon**, *Wageningen University & Research (WUR)*

2023   **MSc Scholarship** — *John S. Latsis Foundation*; *20 scholarships nationwide*

2021   **Top 7 Ideas — InnovinAgri**, *Agricultural University of Athens*

2020   **Top 10 Ideas — TROPHY Challenge**, *New Agriculture New Generation*

Volunteering

2019 – Present   **Organizing Committee Member**
PANORAMA of Entrepreneurship & Career Development, Athens, Greece
Event coordination, on-site logistics, outreach.

Additional Information

- **Scientific Contribution:** Conference Reviewer — Associação Brasileira de Agroinformática (SBIAgro, 2025).
- **Summer Schools:** Precision Agriculture (UGhent, 2024) • Behavioral Economics (AUA, 2021).
- **Military Service:** Hellenic Navy (2022–2023) — Fulfilled compulsory national service.