IOANNIS OIKONOMIDIS

STATISTICIAN, PHD CANDIDATE

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EDUCATION

PhD in Statistics

National and Kapodistrian University of Athens

Statistical Techniques for Crop Stage Monitoring and Prediction with Remote Sensing Data

MSc in Statistics & Op. Research

National and Kapodistrian University of Athens

2019 - 2020

GPA 9.44/10

 $\label{eq:Generalized Linear Models} Generalized Linear Models \cdot Bayesian Statistics \cdot Time Series \cdot Non-Parametric Statistics \cdot Deterministic \& Stochastic Models in OR$

Bachelor of Mathematics

National and Kapodistrian University of Athens

2013 - 2018

GPA 8.23/10

Mathematical Statistics · Linear Models · Game Theory · Stochastic Processes

PUBLICATIONS

Conferences

Presenter of academic papers in 7 conferences, 3 of them international

Academic Papers

Author of 2 academic papers in peer-reviewed international journals, 3 more in progress.

Software Packages

Author of 3 software packages in R · more julia and R packages under development

AWARDS

PhD Scholarship

Fanourakis Foundation. 2024 - 2025

MSc & PhD Scholarship

Bodossaki Foundation, 2020 - 2024

Best Statistics Paper Prize for Young Statisticians

Greek Statistical Institute, 2021

SKILLS

Software

R · Julia · MATLAB · jamovi · SPSS · Microsoft Office · HTML & CSS · LaTeX

Driving License

Car (Category B) · Motorcycle (Category A2)

Languages

Greek (Native) · English (B2) · German (B1)

Off the Clock

First Aid Trainer & Rescuer at the Red Cross Professional Pianist

PROFILE

I am a PhD student at the Mathematics Department of the National and Kapodistrian University of Athens, working under the supervision of Professor <u>Samis Trevezas</u>. The research subject I am working on is statistical techniques for crop stage monitoring and prediction with remote sensing data.

I have worked on several projects as a freelance data analyst, gathering experience from a variety of fields including biostatistics, agronomy, psychology, and econometrics. As my PhD studies come to an end, I would like to continue in R&D on data analytics and consulting to leverage my skills in statistics and machine-learning.

WORK EXPERIENCE

Lab Instructor & Teaching Assistant

National and Kapodistrian University of Athens

2020 - now

· Department of Mathematics

Conducted sessions and created teaching material, including R code, exercises, and assignments, for bachelor's and master's level courses on mathematical statistics, non-parametric statistics, linear models, Monte Carlo statistical methods and statistics for stochastic processes. Co-supervised 4 master's students.

• Online Coding Courses - Fox Bytes

Created a series of online courses on R programming for the Center for Continuing Education and Lifelong Learning (CCE) of the National and Kapodistrian University of Athens. The courses are entirely asynchronous, including video lectures, exercises, and assignments. Upon completing the course, the students are granted a certificate from the CCE. Personally undertook the task of marketing & promotion, including a YouTube channel, social media presence, and advertisement.

Data Analyst

Freelance 2020 - now

• Agricultural Goal Programming

Developed an automated fertilizer mixer that optimized the proportions of specified fertilizers to produce a final blend most closely matching the target composition. The final product was an MS Excel spreadsheet in which the user could write the available fertilizers' ingredients, the target composition and get the proportions that produced the desired result or, if not possible, the ones that produced the closest mix possible.

· Biostatistics Cohort Study

Analyzed the data derived from a cohort study on stroke survivors' quality of life and the effect of personalized rehabilitation programs. The analysis, performed on SPSS, included cumulative link & binomial mixed-effects logistic modeling and mixed-effects ANOVA. The results showed the positive effect of rehabilitation in time and uncovered the underlying health conditions (hypertension) and demographic variables (marital status) that affected quality of life.

Crime Rate Spatial Analysis

Worked on the cargo theft crime data of the Federal Bureau of Investigation (FBI). Created a Moran's I cluster map that identified subareas with a high crime rate, significantly reducing the policy application cost. The final product was an interactive report created with R Markdown, leaflet and shiny.

• Index Funds Time Series Analysis

Developed ARIMA time-series models for different components of the S&P 500 index, analyzing their behavior & stability, and forecasting their future values. The final deliverable was a report created with R and LaTeX.