

Dr. Warren O'Neill

<http://warrenoneill.com/>

<https://www.nabla-analytics.com/>

Summary

Since completing my doctorate in Mathematics in 2014 I have been working in the energy trading sector where I have been using my analytic knowledge to develop price predictions, trading strategies and to visualise and analyse data. In 2020 I founded Nabla Analytics to meet the growing demand for Data Analytics in the Energy Industry. What drives me is finding simple and effective solutions to complex analytic problems.

Experience

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| January 2020 - Present | CEO/Data Analyst
Nabla Analytics AB
Nabla Analytics provides data-focused consulting and SaaS products to help energy trading companies operate more efficiently and effectively. We think better utilisation of data is a key part of the green energy revolution. |
| November 2017 - October 2019 | Trading Analysis Manager
ElectroRoute
I managed the analysis work for the proprietary trading team. This work included price predictions, strategy development, strategy tracking, data visualisation and data retrieval. |
| April 2016 - October 2017 | Energy Analyst
ElectroRoute
My tasks included developing price predictions, “trader tools” and implementing and encouraging code development best practices in the analysis team. |
| April 2014 - March 2016 | Quantitative Analyst
Grundgrün Energie GmbH
One of my main tasks was the development and maintenance of a python-based Backtesting Framework used for the testing of trading strategies (code available here). My other responsibilities included the optimizing of the wind and solar production prognoses and developing automated trading strategies. |
| Summer 2008 | Physics Research Student
School of Physics
Trinity College Dublin
I was a part of the original development team for the Miravex project (http://www.miravex.com/). My task was to research and then implement a statistical model using R for the extraction of melanin and haemoglobin concentrations from skin images taken using the device. |
| Summer 2007 | Physics Research Student (IAESTE program) |

North Kazakhstan University

2nd place in IAESTE trainee of the year competition

I took part in research into Noctilucent Clouds carried out by the astronomy team.

Education

2010 - 2014

PhD in Geophysical Fluid Dynamics

Freie Universität Berlin, Institute of Mathematics

Result: *magna cum laude*

I developed a model for moist convection in the atmosphere using theories of partial differential equations and numerical analysis. I also implemented my methods in a C++ solver.

2009-2010

MSc in Mathematical Modelling, University College London

Result: 1st

Courses

Advanced Mathematical Modelling Techniques, Nonlinear Systems, Operational Research, Computational and Simulation Methods, Frontiers in Mathematical Modelling and its Applications, Geophysical Fluid Dynamics, Gas Dynamics, Theory of Traffic Flow.

Thesis

Exploring Models of the ENSO cycle.

Honours

Monica Hulse project award

2003-2008

BA Mathematics (4 year honours degree), Trinity College Dublin

Result: 1st

Courses

4th year: Applied Forecasting/Multivariate Linear Analysis, Partial Differential Equations, Solitons, Information Theory, Applied Linear Statistical Models, Quantum Mechanics

3rd year: Classical Fields, Stochastic Processes, Numerical Simulation, Global Environmental Change, Fluid Mechanics, Mathematical Neuroscience

Thesis

Aspects of the Study of Breaking Water-Waves

Additional Information

Computational knowledge

- Highly proficient in the use of Python, C++, MySQL, Matlab, Tableau, Excel, Apache Subversion, Git/Github, Linux
- Intermediate knowledge of R

Language skills

- English: Native speaker
- German: Professional working proficiency (B2)
- Swedish: Intermediate (B1.2)