# ANDREAS STRATIS

Power Analyst

# Ω PERSONAL DETAILS

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# **WORK EXPERIENCE**

## **Power Analyst**

Shell/Limejump, London (May 2020 - Present)

- Development & performance monitoring of short-term trading algorithms for flexible generation assets.
- Development of constrained optimisation models (MILP) for batteries to maximise profits across multiple revenue streams (e.g. Wholesale Trading, Ancillary Services, Balancing Mechanism).
   Development & maintenance of standalone Python applications (using Docker Containers), managing their excecution with container orchestration systems (MSS ECS, Kubernetes) across multiple environments.
- End-to-end design & development of ETL pipelines for data collection within AWS Storage Services (AWS S3) & interactive querying through AWS Athena, etc.
   Ad-hoc analysis, pricing & risk modelling including calculating risk premiums for PPA products.
- Development of long-term probabilistic generation forecast models to support pricing requests.
- Design, development and maintenance of various analytical & automation tools for the power trading desk.
  Supporting the development of web applications using available web frameworks.

#### **Pricing Analyst - Asset Optimisation**

SmartestEnergy, London (Aug 2018 - Apr 2020)

- Development of long-term pricing valuation models for flexible generation assets.
- Development of pricing models for ancillary electricity markets.
- Development & maintenance of tools for supporting short-term trading activities (generating trade entries, validation of invoices, management of operational & technical constrains, etc)
- Building tools for forecasting & analysing market volume movements to support short-term trading strategies.
  Development & improvement of asset optimisation models for various generation/demand assets, e.g. gas peakers, co-located assets, demand reduction sites.
- Supporting the development of web applications using available web frameworks & libraries (Flask/Highcharts).
   Development and maintenance of ETL pipelines for static and dynamic data access throughout the business.
- Automation of Operational tasks (e.g. performance reporting, automated customer emails, etc.)
   Supporting Head of Markets with RFPs, tenders and auctions.
- Automating reports on short-term trading performance.
- Providing pricing support across a wide variety of standard and non-standard products.

### **Assistant Operations Manager**

KiWi Power, London (Mar 2018 - July 2018)

- Managing KiWi's operational platform, client portfolio and programmes (both UK and International).
- Initiating demand response events, monitoring performance and resolving issues.
- Generating performance reports; managing client performance and addressing client under-performance.
- Providing customer service and maintaining client relationships.
- Developing tools for optimising daily tasks and processes.
- Providing in-depth analysis of tender results of DSR programs and price recommendations for future
- Creating, developing and improving new and existing smart management features for the IT platform.
- Assisting the research and implementation of new programmes.
- Building procedures for extracting data from various platforms.
- Providing monthly & yearly reports on the performance of Operations team.
- Providing ad-hoc reports and statistics.
- Process evaluation and improvement.

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# WORK EXPERIENCE

# **Operations Systems Analyst**

KiWi Power, London (Mar 2017 - Feb 2018)

- Initiate and monitor UK demand response events.
- Client performance analysis & reporting.
- Developing tools for optimising daily tasks and processes.
- Developing tools in Python for data collection & communication to clients.

### **Sustainability Analyst**

Stedin Network Operator, Rotterdam (Aug 2016 - Dec 2016)

- Identify the sustainability improvements in the design & manufacturing of smart electricity & gas meters.
- Road-map development for an environmental and social sustainability tool which estimates the fairness levels of smart electricity & gas meters.

## **Energy Analyst (Part-Time)**

Spectral Utilities, Amsterdam (Jun 2016 - Aug 2016)

- Assisted in the development of a data collection strategy for energy monitoring of various assets.
- Analysis and visualisations of large energy data sets & historical data related to the power consumption levels of commercial customers in order to provide them with technical consultancy on peak shaving solutions.

#### **Demand Response Analyst (MSc Thesis Project)**

TNO Research Institute, Hague (Nov 2014 - Oct 2015)

- Assisted in the development of a co-simulation platform for Demand-Side Response on Low Voltage networks using a Java-based Demand Response tool (PowerMatcher) and a Python based load flow analysis tool (PyPower).
- In-depth analysis of the correlation between domestic DSR and the physical characteristics of power grids.
- Realisation of the potential of using a demand-side management solution for voltage regulation in power grids.



# **EDUCATION**

#### MSc in Sustainable Energy Technology

Delft University of Technology, the Netherlands (Sep 2013 - May 2016)

#### BEng & MEng in Electrical & Computer Engineering

Democritus University of Thrace, Greece (Sep 2006-Oct 2011)



#### **Working Group Expert - Flexible Generation**

European Technology and Innovation Platform Smart Networks for Energy Transition (Sep 2020 - Now)

https://www.etip-snet.eu/about/working-groups/wg-3/

#### **Business Advisor**

Transforming Construction Impact Programme - UKRI (Mar 2021 - Now)

• Advising a team of researchers, working on domestic thermal storage solutions, on market desirability & potential.

### Finalists in "UKPN Charge Challenge" Competition

**UK Power Networks (Jul 2020)** 

• Data Science competition to predict areas with high requirements for EV charging stations in the next years. Report: https://innovation.ukpowernetworks.co.uk/wp-content/uploads/2020/10/ChargeChallenge\_Report\_Stratis\_Pournaras.pdf