AURELIAN-ANDREI PANAIT

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PERSONAL PROFILE

MSc student in Energy at Mines Paris – PSL and former **Proprietary Trading Intern – Energy Markets at Tinmar Energy**. Passionate about solving real-world problems through the intersection of energy systems, trading, data analysis, and programming. Obtained my BSc in Energy Engineering from Politehnica University of Bucharest.

PREVIOUS PROFESSIONAL EXPERIENCE

Proprietary Trading Intern—Tinmar Energy *July 2024 – October 2024*

- Executed proprietary trades in the German and Central & South-Eastern European (CSEE) power markets based on market fundamentals, demand forecasts, and short-term price models.
- Developed short- and long-term price forecasting models for electricity, gas, and emission derivatives.
- Collaborated with senior traders on strategy optimization and risk mitigation.
- Utilized EEX, ICE, and OPCOM platforms for position monitoring and market execution.

Energy Trading Analyst Intern—Tinmar Energy *June 2023 – October 2023*

- Analyzed energy consumption patterns and developed demand forecasting models using Python.
- Handled BRP notifications and ensured compliance with TSO reporting obligations.
- Monitored day-ahead and intraday markets on OPCOM and assessed short-term volatility risks.
- Automated internal reporting tools in Excel (incl. VBA) and created visual dashboards in Power BI.

Optical Technology Engineer—Spectro Optica Serv. SRL *March 2020 – June 2023*

- Maintained and optimized optical engineering equipment for diagnostic and industrial use.
- Performed calibration procedures and developed maintenance protocols.
- Ensured high standards in optical performance and engineering precision.

EDUCATION

Master's in Energy—MINES Paris – PSL, Paris, France *February 2025 – Present*

- Specialization: Renewable Energy Integration & Energy Efficiency.
- Core modules: Data Processing, Python, Basics of Nuclear Energy, Heat and Mass Transfer, Fluid Mechanics, Solid-State Electronics.

National University of Science and Technology POLITEHNICA, Bucharest

MSc in Computational Modeling for Renewable Energy *Merit Scoalrship, Grade 94%*
(10/2024–02/2025)
Bachelor's in Energy Engineering (09/2020–07/2024) *First Class*
Thesis: Solar Energy Modeling for Floating Photovoltaic Systems on Inland Reservoirs
Advisor:Liana Ioana Vuta

The University of Manchester, UK

Undergraduate Studies in Electronic Engineering (09/2015–07/2016) *Merit Scoalrship*

Tudor Vianu National High School of Computer Science, Bucharest Romania

Computer Science and Mathematics (09/2011–05/2015) *Grade 90.5%*

PROFESSIONAL SKILLS

Programming Languages

– Python (since '15), MATLAB, VBA.

Technical Skills

– Data Analysis · Solar Resource Modeling · Differential Equations · Linear Algebra

PERSONAL PROJECTS

Covered Call Trading Tool – Python *Jan 2025*

– Built a personal tool to evaluate covered call strategies using the Black-Scholes model.
– Computes option pricing, delta, breakeven point, and P&L analysis.
– Developed in Python using `NumPy`, `Pandas`, and `Matplotlib`.

Solar Irradiance Modeling and Site Suitability Tool *Code*

– Developed a custom Python implementation of the Sukhatme-Nayak tilted irradiance model to convert NASA POWER GHI data into TGI for multiple Romanian reservoirs. The algorithm calculated beam, diffuse, and reflected irradiance components using solar geometry equations (declination, sunset hour angle, clearness index, etc.). Conducted spatial and statistical analysis to identify high-potential sites for floating PV deployment, integrating environmental and technical criteria.

INTERESTS

Languages

– English (fluent), French (beginner), Italian (beginner), Romanian (native)

Music

– Guitar

Sports

– polo, snowboarding, cycling

Mind Sports

– Poker (strategic tournament play), chess (club-level)