Daniil Aktanka

Sustainable Systems Engineer

[in] daniil-aktanka   [○] akthonka   [✉] daniil_aktanka@proton.me   [☎] +41 (0) 798266155

Personal Statement

As an experienced engineer with a background in data science and sustainability, I am currently advancing my expertise in technology management, strategy, and risk & resilience engineering at UCL. This degree marks a strategic pivot in my career, bridging my technical acumen with managerial insights. Equipped with hands-on technical experience and a deep understanding of data-driven and sustainable practices, I am uniquely positioned to contribute to and lead in the evolving landscape of technology management and innovation.

Experience

STM MINERALS AG   Technical Assistance Engineer

Aug 2020 - Jul 2023 | Baden, CH

→ Directed initiation, planning and execution project phases of an industrial-grade IoT hardware product and cloud service for both internal and external use. Spearheaded system engineering design as well as programming development. Launched a new, internal, company database.

Specifics: The product enables remote PLC data readout (Allen-Bradley & Siemens), local-hardware backup & sync and server data collection (MariaDB). The system supports integration with realtime cloud-based dashboard visualization and data processing (Grafana).

→ Created and maintained a MATLAB App Designer application software tool (3k+ lines) for company mill-sizing purposes. The tool features multiple internal data-structures, dynamic UI elements and elaborate plot visualizations with built-in data model extrapolations. Approved for use by both sales and engineering departments.

→ Assessed and systematized methodology for grinding-media filling-level computation. Proposed additional uncertainty correction methods to account for slurry density variation using 3D linear data extrapolation. Collaborated on industrial product design solution.

Engineer intern

Aug 2019 - Jul 2020 | Baden, CH

→ Investigated temporal relationship between strain-gauge voltage and grinding-media filling-level. Performed data cleaning and analysis in python via pandas and XGBoost machine learning.

→ Designed and developed a VBA UserForm script (1k+ lines) for efficient document parsing and automation. Simplified commissioning engineers' workflow and improved team's performance by reducing test-report document processing time by ≈83% per project.

→ Consulted in electrical-engineering document standardization. Designed and created standardized templates for piping and instrumentation diagrams.

Projects

POWER FLOW SIMULATION ANALYSIS | python (pandas, pandapower)

2023

→ "Electric Vehicles in Energy Communities: Investigating the Distribution Grid Hosting Capacity (BSc SSE thesis)". Proposed a semi-coordinated energy-community EV charging pattern with a 30% improvement of grid stability for low-voltage European grids, based on historical data.

Education

MSC TECHNOLOGY MANAGEMENT

Sep 2023 - 2024
University College London

MANAGEMENT ESSENTIALS COURSE

Jul 2022
Harvard Business School online

BSC SUSTAINABLE SYSTEMS ENGINEERING

Sep 2020 - 2023
University of Freiburg

Skills

PROGRAMMING

Experienced:
Python • MATLAB • LaTeX

Familiar:
SQL • VBA • git • C • shell

SOFTWARE

Proficient:
Microsoft Office • Visio • Adobe Photoshop/Lightroom

LANGUAGES

Native/C1 diploma:
English • Russian • German

Confident/B2.1 level:
French

Interests

HOBBIES

Photography • Art