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CAREER HIGHLIGHTS

Data Platform Engineering

- Developed ETL pipelines to provide on-chain and off-chain data about Web3, DeFi and DAOs.
- Engineered serverless microservices, infrastructure, and ETL pipelines enhancing data flow and access with Python and AWS. Reduced workflow inefficiencies in CI/CD pipelines.
- Built out, improved, and maintained data operation pipelines and processes .
- Architected monitoring and alerting for data collection and CI/CD.

Data Science and Machine Learning

- · Facilitated data-driven decision-making across finance, blockchain, governance, and health sectors.
- Created customized reporting solutions. Bolstered funding for medical device development by building reports from clinical trials.
- Used generative AI to create infrastructure and data flows documenation for architecture review.
- Built a glucose forecasting model achieving the accuracy of frontline medical devices.

Web3 Data Engineering

- Developed high-impact on-chain and off-chain analytics tools. Built data pipelines for DAOs providing community, governance, and market insights.
- Built a point tracker evaluating Aave liquidity providers.
- Created a community to learn about and build on Web3 data.

SKILLS

- Data Engineering: Data Collection (APIs, Beautifulsoup, Selenium, Playwright) | Data Validation (Pydantic, mypy, dataclasses) | Data Processing (pandas) | Databases (Microsoft Server SQL, InfluxDB) | Flat files (csv, JSON, parquet, feather) | Data Monitoring (AWS Cloudwatch, EventBridge) | Data Pipeline Orchestration (Apache Airflow, AWS Step Functions) | Datalake (AWS S3, AWS Athena, AWS Glue)
- Software Engineering: Cloud Technologies (AWS) | AWS Microservices (Lambda, EC2, SNS, SQS) | Testing (pytest) | Version Control (git, Github, Gitlab) | Frontend (HTML, CSS, Javascript, Anvil) | Backend (Django, FastAPI) | Static-site generators (Jekyl, Hugo, MkDocs, Sphinx) | Python tooling (pip, conda, poetry, venv, black, flake8, mypy)
- **DevOps**: CI/CD (AWS Codebuild/Codepipeline, Github Actions) | Infrastructure as Code (Python CDK/Terraform) | Software Deployment (Docker, AWS CodeArtifact, AWS ECR) | SysAdmin (Linux, bash)
- Blockchain Analytics: On-chain Analytics (Flipside, Dune, web3.py, Etherscan) | Off-chain Analytics (Discord, Discourse) | Web3 Data Sources (Infura, Quicknode, Alchemy, Coingecko API, Etherscan API, The Graph)
- Data Science: Data processing (pandas, numpy) | Data Visualization (matplotlib, seaborn, altair, bokeh, plotly) | Querying (MS SQL, BigQuery, InfluxDB, Snowflake SQL) | Time-Series Analytics (pandas, InfluxDB) | Dashboards (Streamlit, Anvil/Dash)
- Machine Learning: Libraries (scikit-learn, keras), Applications (prediction, clustering, forecasting, anomaly detection), Methods (multi-label classification, rebalancing, cross-validation, evaluation, feature engineering)
- AI Engineering: Integrated IDE workflows (VSCode, Cursor), APIs, prompt engineering (specs-driven coding, chain of thought), output validation (pydantic-ai)
- Work skills: Problem solving, Communication (Technical Writing, Docstrings, Clear communication), Attention to detail, Project Methodologies (Agile, Scrum, Kanban, Waterfall)
- Languages: English (Fluent) | Hungarian (Native)

SOFTWARE ENGINEERING & DATA SCIENCE EXPERIENCE

Python Data Engineer | Diligent | Budapest, Hungary | June 2023 – Present

- Enhanced data accessibility by designing and building serverless data infrastructure and pipelines. Ensured data flow and retrieval for key stakeholders.
- Overhauled data fetcher logic. Transitioned data API fetchers from VBScript to Python, set up data ingestion to database, and integrated scrapers into cloud infrastructure. Resolved issues with data quality, performance, and rate limits. (Python, AWS Lambda, CloudWatch, and MS SQL)
- Built out, improved, and maintained data operation processes. Analyzed and systematized issue resolution pipeline. Improved issue resolution time and improved data & code pipeline reliability and maintainability. (AWS CodePipeline, CloudWatch, EventBridge, SNS, Lambda, and Slack) Orchestrated multi-month backfills.
- Designed structured logging, notifications, and dashboards for data and infrastructure monitoring.
- Reduced code build time by 75% through refactoring. Expanded CI/CD functionalities to increase build reliability and developer experience. (AWS CodeBuild, Lambda, CodeArtifacts, ECR, bash, and GitHub API)

Web3 Data Engineer | Aragon DAO | Remote | August 2022 – February 2023

- Developed reporting pipelines for **DAO community and governance analytics**. Retrieved and processed **on-chain and off-chain data** and ensured accurate and timely delivery. (Discourse, Discord, Dework, Dune, Python, web3.py, and pandas)
- Designed and built a financial oversight dashboard for DAOs. (Python, pandas, Dash, and Anvil)

Data Scientist & Engineer | Freelancer | Remote | September 2018 - June 2023

- Resolved advanced analytics and data challenges across finance, Web3, DeFi, health, and energy sectors.
- Built **analytics pipeline for Terra** crypto arbitrage opportunities. Collected, processed and analyzed on-chain Terra/Cosmos data. (Flipside, Python, pandas)
- Developed a time-series machine learning glucose **forecasting model**. Achieved the prediction accuracy of the market-leading commercial medical devices. (Python, numpy, pandas, scikit-learn)
- Built a **reporting pipeline** from clinical trial data assessing a medical device. Generated actionable insights informing investment decisions. (Python, pandas, matplotlib, seaborn, jupyter)
- Designed a machine learning feature engineering evaluation pipeline. (Python, numpy, scikit-learn)

Junior Consultant & Technical Writer | Dorsum | Budapest, Hungary | January 2016 - May 2018

Supported the development of a B2B wealth management SaaS with regulation analysis, documentation, business proposals, and marketing content.

EDUCATION

Ph.D. in Science and Technology Studies | The Open University | 2010 – 2016

• Ethnographic research on knowledge and technology in financial innovation | Fieldwork on local currency

Diploma (BA + MA) in Economics | Budapest University of Technology and Economics | 2002 – 2007

• Micro- and macroeconomics, mathematics (calculus, linear algebra), economic statistics, econometrics, optimization | Viability study of digital payment schemes | Specialization in economic analysis | Dissertation on economic growth models

SIDE-PROJECTS: WEB3 & DEFI DATA ENGINEERING & ANALYTICS

Web3 data learning community and content | 2025 – ongoing

• Created a community to discuss web3 data related issues.

Aave Liquidity Provider TVL Point Tracker | 2024 October - November

- Built a point tracker evaluating Aave liquidity providers: https://github.com/nocibambi/aave-lp-point-tracker
- Collected on-chain data about assets, liquidity indexes, prices, wallets, and balances. (The Graph, Coingecko, Etherscan, web3.py).
- Processed datasets and calculated points based on Aave whitepapers and documentation. (pandas)
- Exposed the points via a **REST API**. (FastApi)

Token Swap Pool/Market Comparison | 2024 August - September

- Built a data collection and ETL pipeline comparing cryptocurrency token swap platforms. (pandas, Pydantic)
- Researched and identified reliable Web3 DEX and CEX data sources. (CoinGecko, Binance, Dune)
- Developed an ETL pipeline to fetch, parse, transform, and store cryptocurrency market data.

Staking Rewards Web3 Blockchain Analytics Challenge | 2023 April

Analyzed on-chain data about stakers on PancakeSwap and Solana validators. (Python, pandas, web3.py, Quicknode, Infura)

{: .publications} Publications: Machines of Trust | Medium | Dev.to