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CAREER HIGHLIGHTS

Data Engineering and Infrastructure Development

- Developed ETL pipelines to provide on-chain and off-chain Web3, DeFi and DAO data.
- Engineered **serverless microservices**, infrastructure, and ETL pipelines enhancing data flow and access with Python and AWS. Reduced workflow inefficiencies in CI/CD pipelines.
- Architected **monitoring and alerting** solutions for data collection and CI/CD. Improved infrastructure and data pipeline reliability and maintainability.

Data Science and Analytics Solutions

- Facilitated data-driven decision-making across finance, blockchain, and health sectors.
- Developed high-impact **on-chain and off-chain analytics tools**. Built data pipelines for DAOs providing community, governance, and market insights.
- Built a glucose **forecasting model** achieving the accuracy of frontline medical devices. Developed a feature engineering evaluation framework.
- Created customized **reporting** solutions. Bolstered funding for medical device development by building reports from clinical trials.

Financial Technology and Consulting

- Designed dashboards and analytics for DAOs to provide financial oversight solutions.
- Authored documentation, proposals, and white papers for a wealth management SaaS platform.
- Assessed compliance and regulatory requirements for **private banking** software development.

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) | System Administration (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), Applicatins (prediction, clustering, forecasting, anomaly detection), Methods (multi-label classification, rebalancing, cross-validation, evaluation, feature engineering)
- 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 seamless data flow and retrieval for key stakeholders.
- Overhauled data fetcher logic. Transitioned data API fetchers from VBScript to Python, ensured 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)
- Designed notification and monitoring for data and CI/CD micro-services and workflows. Improved issue

- resolution time and improved data & code pipeline reliability and maintainability. (AWS CodePipeline, CloudWatch, EventBridge, SNS, Lambda, and Slack)
- 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)
- Wrote in-depth **technical content** about Machine Learning, MLOps, SQL, and Python.

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

- Created documentation for a **B2B wealth management SaaS**. Ensured clarity and usability for both technical and non-technical stakeholders.
- Developed B2B **business proposals** highlighting platform capabilities. Wrote content marketing **white papers** supporting client engagement.

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

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.
- 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**. (Python, pandas, Pydantic)

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: Machines of Trust | Blockchain Analytics Blog Posts: https://medium.com/@nocibambi