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Employment

Senior Python/Data Engineer	Opinov8/EnergyAspects (Ukraine/UK)	April 2021 – Now
<ul style="list-style-type: none">• Lead development of the following areas:<ul style="list-style-type: none">– Redesigning legacy infrastructures and improving data architecture.– Build a centralized data warehouse and pipelines to collect and process data using dbt from numerous sources and provide daily actionable insights.– Architect, implement, and maintain core internal APIs for data modeling using FastAPI, CloudBuild, Cloud Firestore, Artifact Registry, and Cloud Run Services/Jobs).– Architect, implement, and maintain core public APIs for data delivery.– Implement and maintain several ETL processes to relational dbs/time-series dbs.– Improve data engineering best practices, including code reviews, quality monitoring, and knowledge sharing.– Creating and deploying org-wide dash app templates along with Auth0 integration.– Performing Environment/DAGs migration (prior/post) Cloud Composer/Airflow upgrades.– Building data-related CI/CD pipelines using (Cloud Build/ Github Actions)		
Lead Data Engineer	Akawin (US)	May 2023 – Sep 2023
<ul style="list-style-type: none">• Built real-time ETL data pipelines that collect data from a distributed social network following nostr protocol then integrate with GraphDB, AWS DocumentDB, ElasticSearch, and AWS ElastiCache.		
Lead Data Engineer	Concentrical (US)	Jan 2022 – Jun 2022
<ul style="list-style-type: none">• Lead Migration of Data Platform and Separation of ITK and Concentrical• Architecting/Implementing data deletion endpoints to delete org-level data from all five internal microservices databases/systems + any AWS resources/backups.		
Lead Data Engineer	InsideTrack (US)	Aug 2018 – Jan 2022
<ul style="list-style-type: none">• Leading Development/Maintenance of the Data Infrastructure behind uCoach app which includes:<ul style="list-style-type: none">– ETL Pipelines responsible for ingesting data from 40+ US Universities with different frequencies, transform to consolidate, then load into uCoach Microservices.– Passback Jobs: Extracts from DW (Both AWS Redshift, then later Snowflake) data sent back to clients.– Workflows Orchestration Internal Manager.– Internal ETL tool (https://github.com/inside-track/pemi) (Currently outsourced)– Real-time syncing tools (Fivetran, Stitch, and previously Alooma)– Data Warehouse Modeling, dbt jobs– Setting Team OKRs.		
Lead Data/Analytics Engineer	Rubikal	Summer 2018 – Now
InsideTrack/College Confidential (US Based)		
<ul style="list-style-type: none">• Implemented efficient data pipelines for 40+ US universities. (Python, Postgres, AWS, Docker, K8s, Fivetran)• Lead development of building DW analytical models. (Snowflake, Redshift, Tableau, Metabase)• Lead development of SW life cycle dashboards on top of CircleCI, Github, and Jira. (Stitch, AWS, Redshift)• Lead development of tagging 1.5M educational forum discussions. (Python, AWS)		
Lead Data Engineer	Endless Studios	April 2021 – Jul 2021
<ul style="list-style-type: none">• Architecting/Building a customized data engineering pipeline to ETL data from different sources into Google BigQuery.• Help building refreshable DW analytical models (Data Marts).• Automating the whole ETL process/DW refresh process.		

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| Senior Software Engineer | IMAGO (Germany) | Dec 2020 – Feb 2021 |
| <ul style="list-style-type: none"> Developed a cross-platform scripts that uses FFMPEG to process videos and generate a watermarked set of videos with different resolutions. | | |
| Senior Software Engineer | College Confidential (US) | Dec 2020 – Feb 2021 |
| <ul style="list-style-type: none"> Lead development of forums tagging project by tagging 1.5M posts with college/university/educational institutions name tags based on content. | | |
| Senior Software Engineer | Benchmark (US) | Dec 2020 – Feb 2021 |
| <ul style="list-style-type: none"> Architecting data infrastructure to support timeseries forecasting. Performing ETL for sources like (GDELT (https://www.gdelproject.org/), and internal relation databases etc..) Training models in AWS Amazon Forecast for forecasting of events. | | |
| Teaching Assistant | AAST (CS Department) | Feb 2017 – Aug 2019 |
| <ul style="list-style-type: none"> Taught on-campus courses of Computing Algorithms, OOP, and Data Visualization | | |
| Data Engineer | BADR | Mar 2017 – Jun 2017 |
| <ul style="list-style-type: none"> Implemented a product that analyses Wuzzuf job posts for: <ul style="list-style-type: none"> Recruiters: to reveal needed skills per job title to hire for, and help recruiters write job descriptions. Job Seekers: to reveal needed skills of active jobs current market hire for | | |
| Software Engineer | Incorta | Mar 2016 – Dec 2016 |
| <ul style="list-style-type: none"> Implemented a d3.js visualization library that contains the following graphs (Horizontal Bar Chart, Vertical Bar Chart, Line Chart, Line Bar Chart, Stacked Bar Chart, Grouped Bar Chart, Area chart, Spider Chart, Bubble Chart, Heatmap Chart, Scatter plots, Bubble Map Chart, Geo Maps). | | |
| Software Engineer | WhoKnows (US) | Dec 2016 – Mar 2017 |
| <ul style="list-style-type: none"> Project Scope: Implement and Integrate six pages with 30 Charts into WhoKnows web app <ul style="list-style-type: none"> Implemented SQL queries to provide data per graph. Implemented RESTful APIs to return data needed per graph. Used Angular.js and angular-nvd3 to implement some of the charts in the frontend. | | |
| Software Engineer | Elite HRV (US) | Jul 2016 – Sep 2016 |
| <ul style="list-style-type: none"> Implemented a couple of features like adding tagging features, and adding breathing options to their cross-platform mobile app using ionic. | | |

Education

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| Alexandria, EG | Alexandria University | 2010 – 2015 |
| <ul style="list-style-type: none"> B.S in Computer and Systems Engineering. Undergraduate Coursework: Operating Systems; Databases; Algorithms; Programming Languages; Comp. Architecture; Systems Programming; Computer Vision. | | |

Side Projects

- Wikipedia Daily Hot Topics.** App shows top N topics visited. (Python, Hadoop, JS)
- Distributed Multi-Agent Classifier.** Classify items based on collected data by agents from multiple distributed locations. (Java, JADE)
- Twitter Sentiment Analysis.** App that infers sentiment of tweets. (Python, Machine Learning, JS)
- XO Game with AI Using Assembly .** XO game with MinMax algorithm. (X86 Assembly)

Languages and Technologies

- Languages** Python, Java, JavaScript and C
- Databases** Relational DBs, NoSQL DBs, and Timeseries DBs

- **Cloud Services** Google Cloud and AWS
- **Deployment/CI/CD** Docker, K8s, CircleCI, Github Actions, terraform and CloudBuild
- **Data Related** Hadoop, Spark, Redshift, Snowflake, Tableau
- **Concepts** Microservices, Machine Learning, and Leadership