Patryk Oleniuk

Lead Engineer — Software for AI & Data

About me

Software Engineer with broad skillset and unparalleled ability to learn voraciously and execute fast.
Looking for senior roles in AI / ML.

Excited to work on:
☆ ML / AI / Data Science applications.
☆ Software interacting with hardware.
☆ Groundbreaking projects.

Contact

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🏠 Los Angeles, CA (open to relocate)

Green Card Holder
O-1 Extraordinary Ability Visa

Skills

Coding	Basic 1mo+			Advanced 3y+	
python	☆	☆	☆	☆	☆
go	☆	☆	☆	☆	☆
SQL	☆	☆	☆	☆	☆
javascript	☆	☆	☆	☆	☆
C++	☆	☆	☆	☆	☆
C	☆	☆	☆	☆	☆

Dev Ops

Docker	☆	☆	☆	☆	☆
bash & scripting	☆	☆	☆	☆	☆
AWS EC2/S3	☆	☆	☆	☆	☆
DBs management	☆	☆	☆	☆	☆
Networking	☆	☆	☆	☆	☆

Data Processing & Visualization

Statistics for ML	☆	☆	☆	☆	☆
pandas, numpy	☆	☆	☆	☆	☆
plotly, DASH, streamlit	☆	☆	☆	☆	☆
MLOps with MLflow	☆	☆	☆	☆	☆
Spark	☆	☆	☆	☆	☆

Data Science & ML

Time Series Forecasting	☆	☆	☆	☆	☆
C/NNs, XGBoost	☆	☆	☆	☆	☆
DNNs, GAN, image	☆	☆	☆	☆	☆

Collaboration & Management

git	☆	☆	☆	☆	☆
Fast SW Prototyping	☆	☆	☆	☆	☆
Confluence, JIRA	☆	☆	☆	☆	☆

Experience

Virgin Hyperloop (prev. Hyperloop One)..3 years
○ **Lead Software Engineer, Data Applications**..................................April 2019 - Now
I work in the Machine Intelligence Team, Data Automation & Insights group.
Wearing many hats: Software Architect, Back-End, Data / ML Engineer:

• Designed, developed, and maintained cloud simulation run and analysis tool: golang(run&monitor), python(analyse), EC2/S3, ActiveMQ, MLflow, Tableau, Spark. Purpose: mass scaled simulations & batch analysis for generative transport designs. Result: 50x faster time-to-insight for executives' reports - from 6months to 3days.

• Filed a patent from work explained above.

• Trained & deployed demand prediction models using keras & Horovod, ARIMA, Prophet. Improved Hyperloop capacity utilization by 70% (in transport simulation).

• Managed 5 software products, from requirements definition phase, through execution, bug fixing and maintenance. Always delivered on time or earlier.

• Hired and mentored 3 junior developers.

• Presented at dev conferences, reached >50k tech viewers. One of my talks: [link].

○ **Software Engineer, Data Applications**..............................Nov 2018 - Mar 2019
• Sped-up python analytics code 150x by using Spark/koalas. My talk on how: [link].

• Standardised simulation parameters and metrics by setting up shared python libraries, other coders within the organisation are relying on them every day.

• Built CLI based on go, EC2, S3 and docker that drastically improved reproducibility and automated data-science workflow for analytics team.

• Built interactive plots & dashboards, letting simulation team to deep-dive into data, resulted in >100 bugfixes and AI algorithms upgrades. Video showing my work:[link].

○ **Autonomous Software Intern**.........................Mar - Oct 2018, Summer 2017
• Designed and developed back-end for over-the-air software update & device management. Tech: C++(device side), HTTP/REST, go, PostgreSQL (server side).

• Developed vehicle run automation, C++ on Linux, C on BareMetal over DDS. My code is still used in the test track [link], including the latest passenger test [link].

CERN (European Org. for Nuclear Research).......................................2 years
○ **Test Software and Electronics Team Leader**.................................2016
Led a team of 3 students designing test equipment. Built test software for 7 devices used to test >10k units. Wrote 2 research papers: [paper1], [paper2].

○ **Test Software and Electronics Engineer**.................................2015
Automated Test Equipment software(70%) and hardware(30%) for Power Converter Control Electronics. Software for NI PXI (C) and JTAG B-S (python).

Samsung R&D...3 months
○ **Software Engineer Internship**...................................Summer 2013
C++/Java Smart TV middleware and bug fixes. Project: Virtual Remote Control.

Education

EPFL - École Polytechnique Fédérale de Lausanne....................Master of Science
○ Electrical Engineering and Computer Science................................ 2016 – 2018
Specialisation: Data Science, Machine Learning   Lausanne, Switzerland

WUT - Warsaw University of Technology..........................Bachelor of Engineering
○ Electrical and Computer Engineering...2011 – 2014
Specialisation: Telecommunication and Multimedia   Warsaw, Poland

Full list of my employment(>5) projects(>10) and publications(>5) on linked.in/poleniuk.