

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

	Basic 1mo+	Advanced 3y+
Coding		
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
 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 based on 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](https://www.linkedin.com/in/poleniuk).