

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.
- ☆ Research & Development.
- ☆ Groundbreaking projects.

Contact

✉ patryk.oleniuk@gmail.com
 🔗 [linked.in/poleniuk](https://www.linkedin.com/in/poleniuk)
 🌐 github.com/patryk-oleniuk
 ☎ 213-257-0874
 🏠 Los Angeles, CA (open to relocate)
 US Green Card Holder
 US 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 | ☆☆☆☆ |

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|---------------------------------|------|
| 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).