Olena Kriukovska

Python Developer

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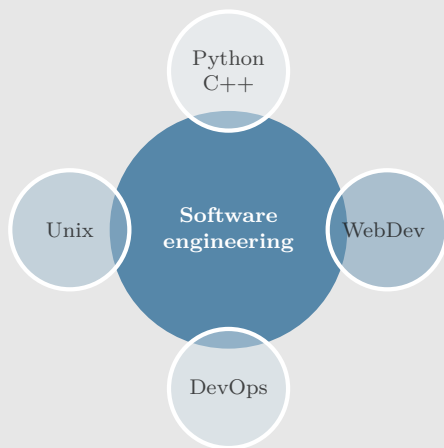- https://okriukovska.github.io
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- olena-kriukovska
- OKriukovska
- permanent residence & work permit
- citizenship

Core competencies —

- Python ecosystem
- Javascript/TypeScript
- **C++** Modern C++ with STL

Education ———

MSc, Computer Engineering
Specialization: *System Programming*
Donetsk National Technical University
Jun 2018 | Pokrovsk (& Donetsk), Ukraine

Profile

- Excellent coding skills in Python and JS, as well as skills in Web and DevOps
- Solid expertise in 3D modeling and computer graphics design (in particular, Adobe Photoshop)
- Scientific research with the focus on micro-controller programming and numerics (discrete element method)
- Life long interest in Computer Science and Web

Skills

	Expert	Proficient	Prior Experience
Programming	Python ● PHP	C++ ● bash ● SQL ● TypeScript/JS	Java ● C Matlab ● Fortran
Web	HTML5/CSS3 ● Flask/Jinja2	Angular	ReactJS ● Django
ML libraries	scipy ● Jupyter	pandas ● sklearn ● plotly ● Dash	keras ● bokeh ● altair
Misc libraries		OpenMP ● MPI	Spark
Tools & utilities	Git ● Adobe Photoshop	Docker ● Ansible	GitHub-Actions ● Jenkins ● k8

Work Experience

Development & Academic Research

2020 – Present — **Freelance developer** — **Málaga**, Spain
Freelancing: Development and Support of Web Apps and Services
`Python` `HTML5/CSS3` `PHP` `JS` `Git/Gerrit` `GH-Actions` `Docker`

2020 — **Visiting Scholar** — *High-Performance Computing Center*, **Stuttgart**, Germany
Fund: Transnational Program for a Pan-European Network of HPC (HPC-Europa3)
Infrastructure and Microservices for Complex Fluid Dynamics (CFD) Simulation of Dynamic Networked Objects (DNOs)
- Developed microservices for CFD simulation of DNOs
- Analyzed massive datasets generated through numerical simulations
- Implemented data storage and analysis mechanisms using REST and NoSQL
- Created visualization dashboard for on-line monitoring
`REST` `NoSQL` `bash` `Python` `ElasticSearch` `Git` `Docker` `VBox`

2019 — **Visiting Scholar** — *High-Performance Computing Center*, **Stuttgart**, Germany
Fund: Transnational Program for a Pan-European Network of HPC (HPC-Europa3)
Research on Digital Twins (DTs) of Complex Dynamic Systems (CDSs)
- Studied the methodologies for creating digital twins of CDSs
- Implemented digital twin of a CDS with networked structure
- Implemented subsystem for real-time monitoring and analysis of DTs
`C/C++` `MPI` `Python` `bash` `Git`

2018 — **Visiting Researcher Student** — *Hamburg University of Technology*, **Hamburg**, Germany
Fund: Verfahrenstechnik Pro3 e.V. society
Development of an Experimental Virtual Lab for Studying Granular Flows in Dyssol toolkit
- Implemented the discrete element method (DEM) for simulating granular flows on computer clusters
- Coded simulation of apparatuses at clusters (included in commercial version of Dyssol – DEM simulation toolkit)
- Done constructing, 3D modeling, and printing of solids process apparatuses
- Programmed and maintained 3D printer
- Prepared a manuscript on implementing DEM in parallel environments
`C/C++` `MPI` `OpenMP` `bash` `Git`

Teaching

2017 – 2018 — **TA** — *Donetsk National Technical University*, **Donetsk**, Ukraine
- Deployed, maintained, optimized, and documented 3D printing infrastructure
- Organized regular University OpenDays and Career Guidances
- Supervised micro-controller programming labs

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About Me ───────

Passionate in developing and administering Web services that shape human experience with WWW

Key Projects ───────

Commercial (contributor)

ᛘ **Dyssol** [C++]

Pet Projects

◯ **Todoro** [Python3] [PHP]

Soft skills ───────

Languages

🇬🇧	English (fluent)	● ● ● ● ○
🇪🇸	Spanish (B2)	● ● ● ○ ○
🇩🇪	German (B2)	● ● ● ○ ○
🇷🇺	Russian (native)	● ● ● ● ●
🇺🇦	Ukrainian (native)	● ● ● ● ●
🇳🇴	Norwegian (A2)	● ○ ○ ○ ○

Clifton Strengths Profile (Top 5)

1 **Focus**
2 **Responsibility**
3 **Learner**
4 **Analytical**
5 **Maximizer**

Education

Academic Degrees

Jul 2018	**M.Sc. in Computer Engineering**	Magna Cum Laude, GPA: 4.9 (out of 5)

Donetsk National Technical University, Donetsk, Ukraine 🇺🇦
Major: **System Programming**
Thesis: *Research of 3D Printing Technology Usage in Microsystems Component Development*
Advisor: Dr. Oleksandr Samoshchenko

Jun 2016	**BSc. in Computer Engineering**	Magna Cum Laude, GPA: 4.9 (out of 5)

Donetsk National Technical University, Donetsk, Ukraine 🇺🇦
Graduation work: *Development of an Electronic Score-Board for Sport Competitions*

Grants and Awards

2020, 2019	Scholarship for Young Scientist in HPC Domain	HPC-Europa3, Germany 🇩🇪
2018	Pro3-Scholarship	Verfahrenstechnik Pro3 e.V., Germany 🇩🇪

Selected Projects

ᛘ	**Dyssol**	Tool for Dynamic Flowsheet Simulation of Production Processes for Granular Materials	[C++]
◯	**Todoro**	TODO Service	[Python3] [PHP]