A software developer with experience across various domains, including Earth observation, climate science, genomics, market research, and banking. Work has involved building software and solving data-related challenges — ranging from simple web API microservices to large-scale postprocessing pipelines for multi-petabyte climate modeling archives.

Education:

Maria Curie-Skłodowska University, Lublin, Poland
Integrated MSc in Computer Science (5-year program)

Languages:

English (B2+) ▪ Polish (Native)

ONWELO

+17 years of experience

PYTHON DEVELOPER

▪ **Python** ▪ **React** ▪ **PostgreSQL** ▪ **AWS** ▪ **NumPy** ▪ **Pandas**

KEY PROJECTS

Climate Risk Modelling and Dashboard – Senior Software Engineer, UK

Responsible for building a web-based data visualization dashboard for climate risk analysis. Developing a backend system for processing meteorological datasets and climate indicators. Creating a frontend using React for interactive data exploration and playback functionality. Processing satellite and climate data using scientific Python tools. Integrating visual components with React Open Player and IOx server for dynamic data playback.
Technologies: Scientific Python, Numpy, Pandas, Xarray, Zarr, Scikit-learn, React-js, IDL.

Satellite Instrument Calibration – Senior Software Engineer, UK

Designing and implementing software tools to support the offline calibration of remote sensing instruments onboard satellite mission. This involved processing raw satellite data, developing algorithms for radiometric and geometric calibration, and ensuring integration with ground segment systems. Worked in close collaboration with scientists and engineers to validate calibration workflows and support overall mission readiness.
Technologies: Scientific Python, Numpy, Pandas, Xarray, Zarr, Scikit-learn, React-js, IDL

Scientific Software Cloud Migration and Benchmarking Project - Senior Scientific Software Enginee, UK

Responsible for porting scientific software from HPC clusters to Microsoft Azure cloud infrastructure. Developed benchmark test suites to demonstrate that typical scientific Python workflows performed comparably on the new platform. Produced detailed reports validating that the cloud solution matched or exceeded the performance of legacy HPC systems. Ensured seamless migration by verifying that existing scientific scripts operated correctly in the new environment.
Technologies: Scientific Python, Azure, HPCS + Nnumpy, Scipy, Iris.

PYTHON DEVELOPER

Education:

Maria Curie-Skłodowska University,
Lublin, Poland
Integrated MSc in Computer Science (5-year program)

Languages:

English (B2+) · Polish (Native)

TECHNOLOGIES & TOOLS:

Languages & Frameworks:

- · Python · React · NumPy · SciPy
- · Pandas · PostgreSQL · GitHub Actions
- · GIT · Flask · JavaScript · PHP · R
- · IDL · Xarray · Zarr · Scikit-learn
- · Iris · Matplotlib · Cartopy
- · Paraview · Pyramid · Anaconda
- · Docker · Jupyter · Notebook
- · RedHat 8 · Fedora · Ubuntu · Slurm
- · Azure · AWS · GCP

PROFESSIONAL EXPERIENCE

Senior Software Engineer

Space Company, 10.2024 – Present

- Developing offline sensor calibration software for ESA's EarthCARE satellite.
- Modelling climate risk and developing a climate data dashboard for the insurance sector.
- Processing meteorological datasets and calculating climate indicators on the backend.
- Building an interactive frontend using React for data exploration and playback.

Senior Scientific Software Engineer

Research Centre, Focuses on Climate Change, 2022 – 2024

Scientific Software Engineer

Research Centre, Focuses on Climate Change, 2017 - 2022

- Delivering data for the Coupled Model Intercomparison Project and related initiatives.
- Developing and maintaining data processing pipelines for climate model simulations.
- Porting the scientific software stack to a new Azure computing platform.

Data Visualisation Developer

Genetics Company, 2016 – 2017

- Developing advanced visualizations to support and enhance the analysis of genome-wide association studies (GWAS).
- Enabling researchers to better interpret complex genetic data patterns and identify significant genetic variants.

Software Developer

Market Research Company, 2014 – 2016

- Developing data exchange feeds and creating market research dashboards to provide actionable insights for major UK retailers, enabling better decision-making and performance tracking.

PYTHON DEVELOPER

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Languages:

English (B2+) · Polish (Native)

TECHNOLOGIES & TOOLS:

Languages & Frameworks:

- Python · React · NumPy · SciPy
- Pandas · PostgreSQL · GitHub Actions
- GIT · Flask · JavaScript · PHP · R
- IDL · Xarray · Zarr · Scikit-learn
- Iris · Matplotlib · Cartopy
- Paraview · Pyramid · Anaconda
- Docker · Jupyter · Notebook
- RedHat 8 · Fedora · Ubuntu · Slurm
- Azure · AWS · GCP

PROFESSIONAL EXPERIENCE

Software Developer
Fintech Company, 2008 – 2013

- Implementing customer relationship management (CRM) software tailored for specialized financial services, enhancing client management and operational efficiency.

Freelancing

2006 – 2008

- Freelancing (Web Development – PHP & JavaScript). Independently delivered a range of web development projects for businesses and individual clients. Specialized in building custom websites and web applications using PHP (including frameworks like Laravel and CMS platforms like WordPress) and JavaScript.

EDUCATION

- **Maria Curie-Skłodowska University, Lublin, Poland**
  Integrated MSc in Computer Science (5-year program)
  2000 – 2005