

Patrick Coser

Oceanographer || Data Processor || Geoprocessing

Last update: March 24, 2025

Up-to-date version of CV is available at

<https://patrickpcaa.github.io/cv-en>

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Resume

As an Oceanographer with additional training in Cyber Defense from FIAP, I have specialized in the intersection between ocean science and data technology, with a focus on the acquisition, processing, and analysis of oceanographic data through advanced methods. My experience ranges from the use of bathymetric technologies and GIS analysis to the application of precise positioning systems, such as RTK and DGPS, in hydrographic and geophysical service projects. I possess solid skills in handling environmental data, such as ADCP, CTD profiles, dissolved oxygen, as well as data on waves, currents, sea levels, and meteorology. My proficiency in Python programming, enhanced by knowledge in data analysis and cybersecurity, allows for the development of efficient routines for processing and presenting oceanographic data. Experience in cybersecurity complements my analytical capability, bringing a rigorous approach to the protection, analysis, and management of sensitive data, essential for the integrity and security of oceanographic projects.

Professional Experience

October 2021 – Now

Freelance - DataProcessor

- MBES processing through the softwares: QPS Qimera and FMGT, EIVA NaviEdit and Navimodel, Beamworx AutoClean and AutoPatch. Data validation, calibration, backscatter, quality control, deliverables production.

- Multisource Data Integration: Combining bathymetric data with other geospatial data sources and python for comprehensive analysis.

Qimera AutoClean Eiva NaviEdit Navimodel QGis FMGT Python GlobalMapper

November 2022 – May 2024

Mazars

- Internal and External Pentesting
- Pentesting on Web Applications
- Implementation of Security Policies following guidelines from CMN, Bacen, CVM, NIST, and ISO 27K
- Monitoring, auditing, and assessing the maturity of information security processes
- Analysis and mitigation of risks and vulnerabilities in cyber security systems, applications, processes, and infrastructures.
- Automate internal processes, creating interactive dashboards and web systems

Pentest Audit Vulnerability Assessment

April 2018 – July 2021

EGS Brasil

Data processing with Python and the development of technical reports for clients, incorporating automated methods for document creation using the language. Utilized libraries include Numpy, Pandas, Matplotlib, Cartopy, Seaborn, gsw, pylab, and pycircstat. Maintenance, testing, and development of

procedures for oceanographic electronic equipment such as SBES, ADCP, CTD and HOB0. Data acquisition via watercraft, conducting surveys, and installing tide gauges.

Data Analysis Python Geoprocessing

February 2016 – December 2016

Ecoceano - Junior Consulting Company in Oceanography and Environmental Education

Managing cash flow, preparing informative reports, conducting strategic planning, and supervising advisors in the distribution of tasks.

Environmental Education Cash Control Accounting

Education & Certifications

- Cyber Defense - Faculty of Informatics and Administration Paulista - FIAP [2022]
- Bachelor's in Oceanography - Federal University of Espírito Santo - UFES [2018]
- Basic Offshore Safety Induction and Emergency Training (BOSIET) and Compressed Air Emergency Breathing System (CA-EBS) - [2028]
- Offshore Energies UK (OEUK) - [2026]
- Basic Safety Induction, Emergency Training (CBSP) & Helicopter Underwater Escape Training (HUET) - [2026]

Experience

December 2016 - Now

Data Processor

Data analysis; Data qualification; Creation of data processing workflows; Automation of data processing.

Anaconda Github Python PHP Matlab ArcGis Qgis Autocad Hypack Qimera GlobalMapper FMGT

January 2021 - Now

Cyber Security

Internal and External Pentesting; Web application pentest; Vulnerability analysis.

Linux Python SQL C Ruby Power Shell Bash Nmap Nessus Shodan GitLab GitHub AWS Azure

Data Analysis

Python

Linux

Qimera

AutoClean

QGis

GlobalMapper

FMGT

ArcGis

EIVA

SonarWiz

Hypack

AutoCad

Projects

Date	Client	Project	Vessel	Software	Designation
Mar/2025 - Apr/2025	RTE - GeoXYZ	RTE Atlantic Coast	Geo Ocean XVIII	<div>Qimera</div> <div>AutoClean</div> <div>QGis</div> <div>GlobalMapper</div> <div>Python</div>	MBES Data Processor - France

Date	Client	Project	Vessel	Software	Designation
Aug/2024 - Out/2024	RTE - GeoXYZ	RTE Off Coast Atlantic	MinervaUno / Geo Ocean XXII	Qimera AutoClean QGis GlobalMapper Python	MBES Data Processor - Remote
May/2024 - Aug/2024	PowerLink - GEM	Neuconnect	Mintis	Qimera AutoClean QGis GlobalMapper Python	MBES Data Processor - Remote
Jan/2024 - Fev/2024	EGS	EGS UK - Sunderland	Opportunity Vessel	Qimera AutoClean FMGT QGis GlobalMapper Python	MBES Data Processor - Remote
Jul/2019 - Mar/2021	IBAMA	Shore Approach	Opportunity Vessel - Sem Limites	Github Python PHP Matlab ArcGis Qgis Autocad Hypack HOBOWare Global Mapper Edgetech Discover SignatureWaves Echart Ruskin SeatermV2	Senior Geoscience Technician
May/2021 - Jun/2021	Rede Nacional de Ensino e Pesquisa (RNP)	Programa Amazônia Integrada Sustentável (PAIS)	Opportunity Vessel - Maruaga	Python SeatermV2 Ruskin ITER SYSTEMS BathySwath echosounder SBG SYSTEMS Ellipse 2 MRU Teledyne DMS-05 MRU	Senior Geoscience Technician
Oct/2021	EllaLink	Pre cable lay route survey	Opportunity Vessel - Ridley Thomas	Python SeatermV2 Ruskin ITER SYSTEMS BathySwath echosounder SBG SYSTEMS Ellipse 2 MRU Teledyne DMS-05 MRU	Senior Geoscience Technician
Nov/2020 - Mar/2021	CELSE – Centrais Elétricas de Sergipe S.A	Centrais Eletricas de Sergipe	Opportunity Vessel - Tuna 48H	Hypack Echart Scanline HOBOWare Geosuite Acquisiton Edgetech Discover Sonardyne Ranger Valeport Datalog Sonarwiz Qinsy Qimera	Senior Geoscience Technician II
Aug/2019 - Dez/2019	Alcatel Submarine Network - ASN	Malbec Submarine Cable - Cable route survey in Rio de Janeiro and Santos - Brasil	Opportunity Vessel	Hypack Echart Scanline HOBOWare Geosuite Acquisiton Edgetech Discover Sonardyne Ranger Valeport Datalog Sonarwiz Qinsy Qimera	Hydrography Technical Assistant III
May/2019 - Jul/2019	TE SubCom	South Pacific Subsea Cable system	Opportunity Vessel	Hypack Python QGIS Qimera Global Mapper	Hydrography Technical Assistant III
Aug/2018 - Jan/2019	Rede Nacional de Ensino e Pesquisa (RNP)	Hydrographic and Geophysical Survey - Grande do Norte and Fernando de Noronha Archipelago (PE)	Opportunity Vessel - Gaivota	Hypack Python QGIS Global Mapper	Hydrography Technical Assistant III
Oct/2018 - Dec/2018	Petrobras	Shore Approach	Opportunity Vessel - Tiburcio	Hypack Echart Scanline HOBOWare Global Mapper Edgetech Discover Nortek Aquadopp SIG500 Python Matlab	Freelance