

Innovative Staff Software Engineer (DevOps & Platform) with over 5 years of experience architecting cloud-native distributed systems, delivering enterprise-scale software solutions, and optimizing high-performance data processing pipelines

Demonstrated expertise in designing resilient microservices architectures, implementing robust CI/CD automation, and leading high-performing engineering teams to successfully deliver mission-critical projects with significant business impact

## Experience

**hiop** 10/21 - Today

**Staff Software Engineer** (01/23 - Today):

- Co-created the company's flagship high-performance data processing platform, enabling rapid delivery of high-value data products:
  - Designed and implemented a resilient event-driven architecture supporting high-volume, low-latency data flows using *gRPC*, advanced concurrency models and distributed processing
  - Built a state-of-the-art access layer based on *OAuth2* authentication RBAC
  - Implemented a zero-trust architecture through a distributed proxy layer and fine-grained, service-level authorization
  - Added full *Language Server Protocol (LSP)* support, improving developer experience and enabling richer ecosystem tooling
  - Increased query engine performance by 50% by rewriting critical components in Rust
  - Automated user onboarding and resource provisioning, significantly reducing operational overhead
- Architected and automated CI/CD pipelines and the end-to-end SDLC workflow, improving deployment reliability, reducing release times from days to minutes, and enabling continuous delivery across multiple services
- Led technical direction and team evolution, mentoring engineers and driving processes that supported growth from 5 to 20+ team members

**Junior Software Engineer** (10/21 - 12/22):

- Co-created the framework and infrastructure for real-time ML/DL applications, enabling low-latency inference and robust production deployments
- Developed and maintained 20+ core libraries powering the company's internal toolchain, establishing shared abstractions, coding standards, and scalable development practice

**Junior Full Stack Developer @ CNR's Institute of Biophysics**

12/20 - 08/21

Developed from the ground a Python and JS-based web application named *NeuroFeatureExtract* to analyse electrophysiological features as part of the *Human Brain Project*

### Others

Bioinformatics Trainee @ <i>ISMETT</i>	05/21 - 08/21
ML Research Project Collaborator @ <i>UNINA</i>	11/19 - 04/20
Full Stack Developer Trainee @ <i>Informamuse</i>	01/19 - 04/19

### Open Source

arrow, datafusion, iceberg, delta, envoy,  
conda maturin, rust-toolchain

## Education

**Double Master in Computer Science @ UNIPA & UGE**

09/19 - 10/21

Graduated cum laude with thesis on *RDF data and columnar formats*

**Bachelor in Computer Science @ UNIPA**

09/16 - 07/19

Graduated cum laude with thesis on *suffix array data structure*

### Others

<i>CMM Pre-doctoral Research School</i>	08/20
<i>ESS Information Science School</i>	09/19
Erasmus Exchange @ <i>ELTE</i>	09/18 - 01/19
<i>Bocconi Logic Games</i> Regional Winner	04/15

### Publication

*The EBRAINS NeuroFeatureExtract: An Online Resource for the Extraction of Neural Activity Features From Electrophysiological Data*

## Skills

### Certifications

AWS: *Practitioner, Developer*  
GCP: *Digital Leader*  
GitHub: *Foundations, Actions, Advanced Security*

### Workflow

Cloud, DevOps, CI/CD, IaaS, Git, Docker  
Rust, Python, Node, Java, Scala, C  
Leader, Tutor, Critical-Thinking, Data-Driven

### Languages

Italian: native  
English: C1  
French: A2