Gabriele Zigurella

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EDUCATION

- **University of Pisa** — Pisa, Italy
  Computer Science (Mathematics) — *Sep 2019 – Oct 2022*

- **Technical Institute Amerigo Vespucci** — Livorno, Italy
  RDBMS, Web Development and Business Management — *Sep. 2014 – Jun. 2019*

EXPERIENCE

- **Nextmind - Quantum X s.r.l.** — Livorno, Italy
  Software Engineer — *Feb 2022 - Present*
  - **Python 3**: File manipulations with Python 3, LAPACK and Tensor based manipulations and analysis. Built Proof of Concept code for Quantum Algorithms such as Q-Means (Quantum K-Means), successfully executed on IBM Quantum Computer
  - **Liferay**: Liferay is a Java Framework that streamlines the development for Enterprise Portals and Content Management System. Liferay is built upon Java EE and OSGi Framework (Felix Implementation).
  - **Google Cloud**: Google Cloud project is one of the leading Cloud Vendor, I happened to install many infrastructures based on Cloud Run and Compute Engine. Along virtualization means we also used CloudSQL to deploy relational databases and Load Balancer to handle subdomains of Nextmind's enterprise website.
  - **Java EE & Quarkus**: Quarkus along with Java EE was my main focus during my years as a Software Engineer at Nextmind, focused mainly on Java 8 and 11.

- **AXA S.p.a.** — Remote working, Italy
  DevOps — *Apr 2022 - Today*
  - **Python3 and Bash Scripting**: Minor Scripting to automate Deployments and Boring stuff between production rollouts.
  - **OpenShift**: Extensive use of OpenShift Deployment Configs and Pipelines to automate blue-green deployments and for maintenance.
  - **PostgreSQL**: Extensive use of PostgreSQL internals during maintenance and war room calls.
  - **Jenkins & Groovy**: Minor Scripting experience to automate Deployments through the use of Jenkins to handle multi-node cluster deployments.
  - **Java EE & Spring**: Services for AXA were developed with Java EE and Microservices in mind, rarely with the use of Spring along with the OSGi Framework (Felix).
  - **JavaScript ES2015**: Main functionalities of the view were built with JavaScript along with utilities such as jQUery and Lodash.
  - **React.js**: Reactive functionalities have been developed with React.js and bundled with Webpack for use inside of Java JSPs.
  - **Liferay DXP**: Development for the DXP (Business oriented) version of Liferay, Java Framework for Enterprise Content Management

- **BKN301 S.p.a.** — Remote working, Italy
  Blockchain & Cloud Architect — *Jul 2022 - Dec 2022*
  - **Github Enterprise & GitHub Actions**: Automation of Artifact built and deployment with GitHub Workflows (aka GitHub Actions).
  - **HashiCorp's Vault**: Secrets Management with HashiCorp's Vault and Google Cloud KMS.
  - **SonarQube & SauceLab**: Quality Assurance with SonarQube and SauceLabs.

- **Freelancer** — Livorno, Italy
  Software Developer — *Jan 2019 - Mar 2022*
  - **Python 3 - DJango**: Microservices development with DJango Framework for real estate related businesses.
  - **PHP - Wordpress Plugin Development**: Development of Plugins and Customizations for Wordpress with PHP.

- **GitHub Copilot (Preview)** — Livorno, Italy
  QA Tester — *Jan 2021 - Aug 2021*
  - **Anaconda (Python 3) - Machine Learning**: Maintenance and minor improvements on I/O C wrapper.
  - **SciPy - Machine Learning**: Classification of Data and Behavioural Simulation.
  - **C Programming**: Testing automation with Criterion for GitHub Copilot Preview Internal API.

Projects & Hobbies

- **Erasmus KA2+ @ London, United Kingdom**: Unpaid first experience as Software Developer with Python 2.7
- **Java User Group Pisa @ Pisa, Italy**: Leading the Java User Group of the Tuscany, precisely located in Pisa. Currently focused on building the Java Community
- **Homelabbing and SysAdmin @ 127.0.0.1**: Server Administration at home with custom home-made server with OKD (Red Hat's OpenShift)
- **Lambda @ 127.0.0.1**: A Pythonic replacement for GNU AWK

Extra-Courses

- **An Introduction to Qiskit @ Pisa, Italy**: Seminary about Quantum Gates and small circuits, how to run on IBM Quantum Computers and simulate with AER Density Simulators
- **Post-Quantum Safe Cryptography @ Pisa, Italy**: Seminary and part of course of Cryptography at the University of Pisa. Lead by Anna Bernasconi we faced protocol BB84
- **Quantum Applications @ Livorno, Italy**: Full course about quantum applications, how to optimize Machine Learning training with Quantum Machine Learning. Solving clustering problems in near-linear time complexity and facing cascade projections with Quantum Montecarlo.

Programming Skills

- **Languages**: Java, Scala, Kotlin, Python 3, Javascript, SQL, LaTeX

- **Technologies**: Qiskit, LAPACK, Nuitka, PyPy, Liferay, Quarkus, SpringBoot, GraalVM, Elasticsearch, Apache Tomcat, Apache Solr, Apache Kafka, Apache Lucene, RabbitMQ