Francesco Ranellucci

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EXPERIENCE

Junior full stack intern   Sep. 2025 – Present
ZeroB s.r.l.   *Turin, Italy*
- Engaged in a comprehensive training and onboarding program for a Software Engineer role, in preparation for assignment to live software development projects.
- Developing core competencies in Java programming (OOP, design patterns) and relational database management using Oracle SQL.
- Applying theoretical knowledge and enhancing problem-solving skills through hands-on, corporate-style project simulations covering the full development lifecycle.

Software Engineer intern   Jul. 2022 – Feb. 2023
National Institute of Metrological Research – INRiM   *Turin, Italy*
- Developed a user-friendly GUI software for Microsoft Windows using C#, tailored for interfacing with a Gage PCI Digitizer utilized in an advanced non-linear optical microscope setup.
- Implemented multi-threaded programming to optimize software performance, enabling concurrent processing of data from all 8 channels of the acquisition card. This ensured seamless real-time data acquisition and analysis, even during extended time-lapse experiments.
- Developed software features for generating high-quality images of analyzed cells and graphical representations, crucial for aiding researchers in analyzing experimental data.
- Integrated socket communication for seamless interaction between the software and the digitizer device.
- Leveraged C# libraries such as Bitmap, Libtiff, Net, and System to enhance functionality and streamline development
- Utilized Git for version control to ensure collaboration and manage software revisions effectively.

EDUCATION

Polytechnic University of Turin   Turin, Italy
Bachelor of Science in Computer Engineering   *Oct. 2019 – Ongoing*

Liceo Scientifico Statale Galileo Ferraris   Turin, Italy
Diploma of Scientific High School   *Sep. 2014 – Jul. 2019*

Big Sky High School   Missoula, MT, US
High School Exchange Program   *Aug. 2017 – Jun. 2018*

PROJECTS

Fantacitorio bot | *Python, Telegram API, Snscrape, Git*
- Development of a Telegram bot using the Telegram API to create a game manager inspired by fantasy football. The bot is capable of live scraping a website updated during a TV show and computing points and rankings for teams. Users can interact with the bot via a Telegram group chat involving all players.

La Vuelta | *Python, Selenium, BeautifulSoup*
- Web Scraping project in Python for the real-time extraction and analysis of unstructured data related to the La Vuelta cycling race, utilizing libraries such as BeautifulSoup and Selenium. The extracted data is transformed for statistical analysis, and the results could be notified via the Telegram API. Source code management is ensured by Git.

Average deposit & bank statement | *Python, Pandoc, csv*
- Development of an average deposit and bank statement calculator that generates a paper document containing all data and information. The calculator operates based on a *.cvs file (generic MS Excel), provided by the user as input.

OrderManagementCLI | *Java*
- Development of a functional Command Line Interface (CLI) application designed for streamlined order management. The project involved designing the underlying business logic for customer/product data management and ensuring data persistence.

TECHNICAL SKILLS

Languages: C, C#, Java, Matlab, Python, Assembly, Shell, SQL, Lua, Latex, Markdown, HTML, CSS.
Developer Tools: Linux, Command Line, Git, GitHub, GitLab, Svn, Raspberry Pi, Arduino, OOP, Algorithms and Data Structures, Vim, VSCode, Visual Studio, Eclipse, Intellij.
Languages: Italian, English