

Nicola Ricci Maccarini

Software Developer

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EDUCATION

University of Ferrara

B.S. Computer Science

September 2022 - Current

WORK EXPERIENCE

Gescad S.p.A | Software Developer

June 2023 – November 2023

- Restructured comprehensive management tools that enabled third-party operators to monitor equipment statuses in real-time; findings led to targeted solutions addressing the two primary causes of prolonged system downtime.
- Collaborated closely with two senior developers on optimizing management systems through refactoring techniques achieving cleaner codebases while ensuring functionality was not compromised throughout development cycles.
- Partnered with one other developer to revamp the primary product display interface; enhanced user experience by reducing load times by 30% while streamlining machinery management throughout all production phases.

PROJECTS

Database Course Project

Python, Pandas, PHP, HTML, CSS, MySQL, MySQL Workbench, Git, VS Code

July 2024

- Partnered with another student to create an interactive web application for accessing comprehensive data about a local museum, which played a pivotal role in earning an impressive final grade of 4.0 GPA.
- Developed an efficient web platform connecting to the museum's database using Python scripting and PHP server-side programming
- Maximized operational performance by introducing systematic methods for analyzing substantial quantities (around 49K+) diverse dataset entries leading to enhanced end-user experience due directly to reliable information access post-cleansing stage.

UpdateIndex

Python, Automation, Obsidian, Git, VS Code

April 2024

- Implemented an automated system that creates and updates markdown file tables of contents, enhancing documentation efficiency while reducing manual labor by roughly four hours every week across the development team.

MMc queue

Python, Tkinter, Simpy, Plotly, Git, VS Code

November 2023

- Developed a robust simulation of a multi-channel queue system with variable inter-arrival times, generating 500+ data points for analysis; findings contributed to improved staffing strategies and reduced wait times for customers.
- Created detailed graphs employing the Plotly library that represented complex data sets from simulations; improved analysis efficiency by 20% while reducing time spent on manual graph creation.
- Designed a robust GUI with Tkinter that simplified data entry processes; decreased the time required to input parameters for software engineers involved in simulations.

EXTRACURRICULAR ACTIVITIES

ItaCPC Challenge

October 2024

Reply Challenge

March 2024

SKILLS

- **Fluent in:** C, Python, Java, JavaScript, TypeScript, PHP, MySQL
- **Algorithms and Data Structures, Relational Databases, Functional Programming, Management Programming, Competitive Programming**