Francesco Marini

Via Nazario Sauro, 8
Cernusco sul Naviglio (MI)
20063 – Italy
+39 393 0263545
franz.marini@gmail.com
www.lightskies.net
www.linkedin.com/in/franz-marini/
@fmarini@mastodon.social
@lightman_73
lightman73

About

I'm a senior software engineer, focusing on Apple platforms and in particular iOS/iPadOS development, with a background in computer science and physics, and an interest in graphics and data analysis.
Highly motivated and problem solving oriented, I find having to tackle new problems and coming up with clever and elegant solutions exciting; I have a very diverse working experience both in academia and private companies, facing clients, and working alone and in team to solve a very different array of problems.
I'm always trying to find new challenges to be able to apply all the different knowledge I gained on my previous jobs, and to share this knowledge with the people I work with, and particularly the ones I have the pleasure to mentor.

Employment History

Tribute Brand Inc., remote - 2022 – 2024 — Senior iOS Developer

Fashion and digital clothing company

- Completely rewrote the company iOS app with the latest technologies, turning it into a full SwiftUI, iOS 16+ one
- Interfaced with Unity developers to integrate the AR camera in the app
- Worked with backend developers to help define and implement GraphQL APIs
- Turned Figma designs into fully fledged SwiftUI components and screens

Open Gate S.r.l., Gorgonzola, Italy - 2017 – 2021 — Senior Software Engineer / iOS Developer

Software development agency

- Designed and implemented 5 apps, 3 native in Swift and 2 in React Native
- Maintained and added features to 4 apps, 1 in Objective-C, 2 in Swift and 1 in React Native
- Worked with clients to review requirements, and from them designed UI and UX
- Mentored junior developers and assisted senior ones

Pietro Fiorentini S.p.a, Milan, Italy - 2011 – 2017 — Principal R&D Engineer

Oil&Gas solutions company, R&D Department

- Worked on the development of a spectroscopic downhole fluid composition analyzer and of a spectroscopic infrared water–cut measurement system
- Performed laboratory duties, data acquisition and analysis
- Coordinated with several contractor companies in UK, France, Switzerland and Germany
- Designed and wrote the software for a gas quality analyzer based on an ARM-based embedded Linux controller

Department of Physics, University of Milan, Italy - 1999 - 2008 — Researcher
FOLDLESS S.r.l., Monza, Italy - 2009 – 2011

Prof. R.A. Broglia's Nuclear Physics and Protein Physics research group and later on University spin-off founded by Prof. R.A. Broglia in collaboration with the University of Milan and Rottapharm/Madaus

- Designed, configured and installed two linux computational clusters (2001 and 2004)
- Wrote a proteins visualization program used by the group
- Wrote various simulation and analysis programs and optimized existing ones
- Performed research on the modeling of a stock market, self–avoiding random walks on fractal surfaces, and large percolation clusters, under the supervision of Dr. H.E. Roman (now at University of Milano–Bicocca)
- Performed research on protein folding, its energetics, and non–conventional inhibition with the aim of creating a new class of drugs for a range of retroviruses such as HIV and HCV, using biophysics and bioinformatics tools and methods
- Authored and coauthored 4 papers published in peer reviewed scientific journals, 1 published on ArXiv, and 2 more published in conference proceedings

Skills

- Mother tongue Italian
- Fluent in English
- Basic Spanish

- Teamwork, communication, adaptability, creativity, willingness to learn, critical thinking, mentoring, problem–solving
- Requirements collection, wireframing, prototyping, design
- Data analysis, data visualization
- iOS development, SwiftUI, UIKit, integration with 3rd party libraries, Xcode, git, git flow, GraphQL
- Swift, C, Javascript, Python, SQL, HTML, CSS, Objective-C, Bash, Zsh
- Adobe Photoshop and Illustrator, Affinity Photo, Designer and Publisher, Figma

Interests

I love cats, small and big, and like photography in general, and nature, landscape, and street, in particular. I enjoy cooking, snorkeling, playing guitar, walking, reading, and watching movies. I love to travel, see new places and meet different people and cultures. I'm interested in nature conservation, environmental issues, science, design, architecture, and probably way too many other topics.

Education

University of Milan, Italy - B.Sc. in Computer Science, 2007

Final thesis: "*Protein Folding: Free Energy Surfaces from Monte Carlo and Metadynamics Simulations*"

Publications

Potel, G., Barranco, F., Marini, F., Idini, A., Vigezzi, E., and Broglia, R. A. (2011). *Calculation of the Transition from Pairing Vibrational to Pairing Rotational Regimes between Magic Nuclei ^{100}Sn and ^{132}Sn via Two-Nucleon Transfer Reactions*. Physical Review Letters, **107**(9):092501

Marini, F., Camilloni, C., Provasi, D., Tiana, G., and Broglia, R. A. (2008). *Metadynamic sampling of the free energy landscapes of proteins coupled with a Monte Carlo algorithm*. Gene, **422**(1–2):37–40

Marini, F., Ordemann, A., Porto, M., and Roman, H.E. (2006). *Violation of the des Cloizeaux relation for self–avoiding walks on Sierpinski square lattices*. Phys. Rev. E, **74**(5):051102

Roman, H.E., Albergante, M., Colombo, M., Croccolo, F., Marini, F., and Riccardi, C. (2006). *Modeling cross correlations within a many–assets market*. Phys. Rev. E, **73**(3):036129

Proceedings

Broglia, R.A., Baroni, S., Barranco, F., Bortignon, P.F., Potel, G., Pastore, A., Vigezzi, E., and Marini, F. (2007). *Induced pairing interaction in nuclei and in neutron stars*, in Proceedings of the 41st Zakopane Conference on Nuclear Physics, Acta Physica Polonica **B, 38** (2007), 1129-1138

Broglia, R.A., Tiana, G., Bortignon, P.F., Colò, G., Provasi, D., Marini, F., Vigezzi, E. and Barranco, F. (2006). *From nuclei to proteins: interdisciplinary research in finite many–body physics*, in Proceedings of the Meeting "Highlights in Physics 2005", Department of Physics, University of Milan, Italy

Talks

NSSpain XII, "*Warp Speed with Metal Performance Shaders*", 18th-19th September 2024, Logroño, Spain