

Francesco PACIELLO



Education

University of Salerno

March 2025

Salerno, Italy

Master's Degree in CyberSecurity

• Relevant Coursework: Advanced Cryptography, Network Security, Penetration Testing, Secure Software Development, Digital Forensics.

Apple Developer Academy - University of Napoli Federico II

Expected June 2025

Student

Naples, Italy

Challenge Based Learning (CBL) academy that teaches Coding, Graphical User Interface Design (GUI), and Business

Experience

Charos s.r.l.

May 2024 - Current

Co-founder & iOS Developer

Naples, Italy

- Founded with a prize of €7500 won in SeiUnisa Pre-seed phase pitch competition
- · Collaborating for the development of an iOS app, working on the frontend following Human Interface Guidelines (HIG).
- Developed a landing page using Tailwind CSS and managed a mailing list with over 700 subscribers.

Projects

Quantum Generative Adversarial Network (QGAN) in Anomaly Detection

July - December 2024

Research Thesis on Quantum Computing

Designed and implemented a Quantum Congretive Adversarial Network (QCAN) using Qiskit for anomaly detection

- Designed and implemented a Quantum Generative Adversarial Network (QGAN) using Qiskit for anomaly detection tasks.
- Trained a hybrid QGAN with a quantum generator and a classical discriminator, achieving 86% accuracy on simulated data.
- Utilized Qiskit's circuits and simulators noise models to replicate real-world quantum device conditions for robust model evaluation.
- Demonstrated the potential of quantum machine learning in classification of anomaly data in a network.

BeHappy November 2024

iOS App - Built in team

Naples, Italy

Salerno, Italy

- Developed using SwiftUI, and designed to improve serotonin levels by encouraging users to smile daily, based on scientific research.
 - Integrated CoreML models trained using CreateML to detect smiles through the device camera, used Swift Concurrency for managing it.
 - Implemented real-time feedback and sounds using AVFoundation to ensure a smooth user experience.
 - · Collaborated effectively with the team using GitHub for version control and project management.

Tier List Maker

September 2023

Naples, Italy

iOS App

- Designed and developed with Swift, SwiftUI, and SwiftData, enabling users to create and share personalized tier lists.
- · Published on the App Store, achieving an average of 40 daily downloads and strong user engagement.
- Implemented RevenueCat API for including in app purchases.
- Sold the app in November 2024 for \$2,000 to another indie iOS developer, demonstrating its market value and business potential.

Programming Pepper Robot for Hospital Assistance

March 2023 Salerno, Italy

Project for the university course of Data science and machine learning - Built in a team

- Used NaoQI API, connected with Alexa for intuitive voice-based interactions with hospital staff and patients.
- Implemented facial recognition for patient presence detection using Pepper's embedded cameras.
- Utilized Firebase NoSQL database to store and manage hospital room and patient information.
- · Developed a mapping system to assist in navigating and identifying rooms requiring medical attention.

Daily WeightsNovember 2022iOS AppNaples, Italy

- Developed in Swift, it helps users track their body weight and BMI, visualize trends through dynamic charts, and analyze weekly progress.
- Leveraged CoreData for efficient local storage and retrieval of user weight entries.
- Implemented RevenueCat API for including in app purchases.
- Implemented advanced statistical calculations, including weekly averages and variance analysis, to provide actionable insights.
- Designed an intuitive user interface with SwiftUI to enhance user engagement and usability.

Awards

SeiUnisa Pre-seed phase, Won a startup pitch competition prize of €7000, University of Salerno.2022, 2023SeiUnisa Seed phase, Won a startup validation competition prize of €15000, University of Salerno.2023, 2024

Skills

Programming languages and technologies: Proficient: Swift, Python, C, Java, Qiskit, Javascript, LaTeX Familiar: TensorFlow, PHP, HTML/CSS, SQL Languages: *Italian* Native, *English* B1 Soft Skills: Teamwork, Time management, Problem solving, Leadership, Decision Making