



Shayan Balgol

ABOUT ME

My passion for Computer Science and Biomedical Engineering has been motivated me to pursue higher education in these fields. In addition to my academic achievements, I am enthusiasm for engaging in various side projects related to my studies, which I consider more than just a hobby.

EDUCATION AND TRAINING

[16/09/2020 – 14/02/2024]

B.S. Degree in Biomedical Engineering

Università degli Studi di Genova <https://unige.it>

City: Genova

Country: Italy

Field(s) of study: Biomedical Engineering | Expected graduation date: 02/2024

Thesis: Development of software applications for medical training

[16/09/2022 – 15/09/2023]

B.S. Erasmus+ Study Program

Universitat Rovira i Virgili <https://www.urv.cat/es/>

City: Tarragona

Country: Spain

ENGINEERING PROJECT EXPERIENCE

[11/2023 – Current]

Web-Based AR Application with 3D Heart Interaction

Developing a web AR application in PlayCanvas using JavaScript, and Blender to modify 3D Heart. Use augmented reality to view a human heart and scan its major parts.

[09/2023 – 01/2024]

Development of Mobile Application for Medical Training

For my Bachelor's thesis, I Developed a mobile application with Unity, C++, and Arduino which receives the data from the measurement system and provides feedback about the correct position and pressure of the anti-hemorrhage device(Tourniquet). This application would be an educational tool to help novices understand the correct positioning and most appropriate force to apply to stop a massive hemorrhage.

[01/2023 – 06/2023]

Implantable Temperature Monitoring and Data Transmission Project

Designed an implantable data logger with a thermistor-based probe, transmitting data to an IoT database via Arduino Uno and WiFi shield, with remote visualization capabilities in MATLAB.

[01/2023 – 06/2023]

Design PPG(Oximeter) Device Connected to Mobile Using Bluetooth

Collected and analyzed data in both infrared (IR) and red light wavelengths, processed it using MATLAB, conducted real-time experiments with RFDuino, and integrated it into a telemedicine app for HRV.

[01/2023 – 06/2023]

Development of Automation Control for PCL with SoMachine

Utilized software, including SoMachine, Vijeo Designer, and SoMove, to program and achieve integrated automation control and communication for PLC, HMI, and motor control.

[09/2022 – 01/2023]

Circuit Design with Sensors and Data Acquisition

Collaborated with a team to design circuits for signal filters, sensors, and data acquisition systems.

[06/2021 – 12/2021] **Develop Data Analysing Program in MATLAB App Designer**

Designed a user interface and developed a data-analyzing application using MATLAB App Designer. The application is designed to import raw data, classify it, and provide visualizations such as plots and comparisons. The focus of the project was on testing death rates associated with different diseases in various countries worldwide.

WORK EXPERIENCE

[15/12/2018 – 15/09/2020]

Project Manager

Espring Corp

City: Tehran

Country: Iran

- Managed baby stroller and feeding seat production line projects.
- Planned and coordinated necessary resources to launch new products.
- Monitored production progress, controlled costs, and met deadlines.

[20/09/2016 – 15/12/2018]

Quality Assurance

Espring Corp

City: Tehran

Country: Iran

- Performed audits and developed reports of the entire production process.
- Identified problems and collaborated with cross-functional teams to develop solutions.
- Performed quality assurance testing to ensure delivery of high-quality products to market.

LANGUAGE SKILLS

Mother tongue(s): Persian

Other language(s): English(C1) , Italian(C1) , Spanish(A2) , Catalan(A1)

TECHNICAL SKILLS

Digital skills

Programming Languages: C/C++/C#, Python, Unity, R Programming, Arduino, JavaScript

Simulation and Data Analysis Software: MATLAB, LabView, ANSYS Fluent

Reporting Tools: Microsoft Office

Circuit Design Software: LTspice, Proteus

Design Tools: Solidworks, Blender, Adobe Photoshop

Industrial Automation Software: SoMachine, Vijeo Designer, SoMove

Backend Development: Firebase

Industrial skills

Manufacturing: Injection Moulding Machine, Welding Machine, CNC/Manual Mill and Lathe, Extrusion Machine, Riveting Machine, Soldering

DIGITAL SKILLS

programming: Python, MATLAB and SQL | Unity | R Programmimg | C / C++ / C+ | Solidworks software | SoMachine V4.3 | Circuit Design: LTspice, Proteus | LabVIEW | HTML | Microsoft Office package: Microsoft Word, Excel, PowerPoint, Access

ACCOMPLISHMENTS

Awards

UniGe Award for Outstanding Achievement in Erasmus+

Awarding institution: Università degli Studi di Genova

Recipient of the ALISEO Scholarship

Awarding institution: ALISEO (Ligurian Agency for Students and Career)