Golsa Shamszadehamiri

Biomedical Engineer · Medical Devices · Healthcare Software

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PROFILE

Biomedical engineer (M.Eng., Carleton University) with hands-on experience in the production and quality control of orthopedic implants under ISO 13485, medical device registration, and healthcare software development, from real-time ICU monitoring to pharmacy inventory systems. Works with Python, MATLAB, React, Flask, and Flutter, and is certified in dental equipment repair. Front-line pharmacy experience adds a practical view of how patients and staff use healthcare products. A fast learner who communicates clearly and works well in teams and under pressure.

EDUCATION

Master of Engineering (M.Eng.), Biomedical Engineering 2024 – 2026
Carleton University, Ottawa, ON

Bachelor's Degree, Biomedical Engineering 2017 – 2021
Qaemshahr Azad University, Qaemshahr, Iran

BIOMEDICAL ENGINEERING PROJECTS & PRESENTATIONS

- **ICU Multi-Agent Virtual Assistant** (Python, Flask, Flutter). Developed a real-time ICU monitoring system powered by autonomous agents, with a Flask REST API backend and a Flutter web dashboard. It tracks patient vitals, bed availability, and nurse workloads, and generates real-time alerts when a patient's condition deteriorates.
- **Pharmacy Inventory Management System** (React.js, Vercel). Built a full-stack web application for pharmacy inventory tracking, with real-time stock monitoring, product management, and a responsive interface deployed on Vercel.
- **Patient Portraits for Tailored Healthcare** (chatbot). Developed a chatbot that builds a "patient portrait" from demographic data, medical history, current treatments, and lifestyle information, and gives tailored health advice, such as diet and exercise guidance for patients with diabetes. Designed to flag risk factors and suggest a specialist visit when it detects specific patterns.
- **Haptics in Dental Surgery: From Training to Robotic Teleoperation.** Graduate presentation during the M.Eng. in Biomedical Engineering.

MEDICAL DEVICE EXPERIENCE

Technical Assistant Aug. 2022 – Aug. 2023
Kiatolid Tebsetan (orthopedic implant manufacturer), Tehran, Iran

- Worked hands-on in the production of orthopedic implants, including neck screws and pedicles.
- Conducted quality control inspections to ensure products met regulatory standards.
- Contributed to ISO 13485 compliance documentation and the quality management system.
- Used the IMED portal for medical device registration and documentation.
- Managed customer invoicing using accounting software.

Intern 2021 – 2022
Children's hospital, Iran

- Became familiar with a range of hospital medical equipment and how each device is used.
- Learned the process hospitals follow to order medical equipment.

CORE SKILLS

Medical devices & quality	ISO 13485, quality control inspection, quality management system documentation, medical device registration (IMED), dental equipment repair
Software	Python, MATLAB, React.js, Flask, Flutter, REST APIs, Vercel
Pharmacy & healthcare	Kroll pharmacy management system, point-of-sale (POS), over-the-counter product support, medication packaging and labelling, inventory control, First Aid
Office & operations	Microsoft Word, Excel, PowerPoint; records management; invoicing and accounting software; Incoterms 2020
Languages	English (IELTS), French (B1)

ADDITIONAL EXPERIENCE

Cashier 2025 – Present

Bell Pharmacy, Ottawa, ON

- Process cash, debit, and credit transactions accurately on the point-of-sale system and keep the cash drawer balanced.
- Answer customer questions about products and over-the-counter medications.
- Distribute medication bags to patients accurately and on time.
- Monitor inventory levels and place orders to keep products in stock; stock shelves and keep the store clean and organized.

Invigilator Oct. 2024 – Present

Carleton University, Ottawa, ON

- Supervise examinations to uphold academic integrity and maintain a fair, professional testing environment.
- Provide technical support as admin tech for computer-based exams and exams delivered on COMAS, and prepare post-exam reports for instructors.
- Serve as a scribe for students with disabilities.

Pharmacy Assistant (Volunteer) 2025

Rideau Compounding Pharmacy, Ottawa, ON

- Became proficient in the Kroll pharmacy management system.
- Packaged medications and creams, including preparing and printing labels.
- Organized pharmaceutical inventory and processed incoming orders.

English Teacher Dec. 2021 – Jul. 2024

Speakon Institute, Tehran, Iran

- Taught English to children and adults in private and group classes, designing creative methods to keep students engaged.

Operations Coordinator Sep. 2021 – Aug. 2022

Transportation Company, Tehran, Iran

- Coordinated vessel navigation and international shipment logistics, and resolved customer inquiries and complaints through multi-channel support.

CERTIFICATIONS

ISO 13485
Dental Equipment Repair
Technical Assistant Diploma
First Aid
Incoterms 2020
TTC (Teacher Training Course)
IELTS