Bardia Amiryavari, MSc.
Biomedical Engineer

⌂ Bern, Switzerland

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📞 (+41) 78 229 95 47

Research interests: Exoskeleton prosthesis, Sport Biomechanics, Rehabilitation Robotics, Pose Estimation

WORK EXPERIENCE

Apr. 2024 – Dec. 2024

Research Assistant, Berner Fachhochschule

- Berner Fachhochschule rehaLab (rehabilitation lab), Biel, Switzerland
- Pose Estimation use in robotic assisted rehabilitation and movement control
- Image processing using machine learning
- Motor control and mechatronic systems, design and implementation in rehabilitation
- Data Analysis, Plotly and GUI design
- EMG and IMU measurements
- Marker based movement capture and analysis

2014 - 2021

CEO assistant, NanTehran Confectionary and Bakery

- NanTehran Confectionary and Bakery, Tehran, Iran
- Product Distribution and Quality Control, HR management and team leader
- Factory management and innovation section

2018 - 2021

Human Resources for Volunteers, Mahak Charity

- Mahak Charity, International Society for Children with Cancer, Tehran, Iran
- Event manager and team leader

EDUCATION AND TRAINING

Sep. 2021 –Dec. 2024

Master of Biomedical Engineering, Biomechanics

- University of Bern, Bern, Switzerland
- **Thesis**: Vision-based Pose Estimation Platform for Rehabilitation Applications
- Related courses: Movement Biomechanics, Solid Mechanics, Intro to AI, Finite Element, Rehabilitation Technology, Statistics

Sep. 2014 - Sep. 2018

Bachelor of Biomedical Engineering, Biomechanics

- Azad University, Science and Research Branch, Tehran, Iran
- **Thesis**: Calculation of Spinal Thoracic Bones Recovery in Scoliosis Patients pre- and post-op
- Related courses: Prothesis and Orthosis, Intro Biomechanics, Sport Biomechanics, Numerical Methods

2014

Diploma of Mathematics and Physics

- Mesbah Educational Complex, Tehran, Iran

EVENTS AND CLASSES

2012   **Austrian Young Physics Tournament (AYPT)**
- Wien, Austria

2022   **Rehabilitation Robotics, FES and EMG uses for rehabilitation and Robotics**
- University of Bern

2022   **Practical Orthopedic Course in Surgery Room And Patient Talk Time**
- University of Bern

2024   **Abstract Presentation in International Conference on NeuroRehabilitation 2024**
- La Granja, Spain. **Development of a Mobile Gait Trainer Using Pose Estimation**

PERSONAL SKILLS

Programming   Python, MATLAB, Twin CAT, Nexus, Mokka

SolidWorks, Shapr3D, Abaqus, LaTeX, Microsoft Office

Languages   English (fluent), French (advance), German (intermediate), Persian (native)

Hobbies
Photography, Martial Arts, Drums