

# Kimia Khoshnami

Salt Lake City, Utah, US

☎ (801) 690-0621

✉ [kimiakhoshnami@gmail.com](mailto:kimiakhoshnami@gmail.com)

🌐 [Kimia Khoshnami](#)

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## EDUCATION

### MS, Mechanical Engineering

Aug. 2023 – Expected May. 2025

University of Utah, Salt Lake City, UT, US

Thesis: “Evaluating the Effects of Active and Passive Neck Devices on Range of Motion during Daily Tasks”

GPA: 3.57/4

### BS, Orthotics & Prosthetics

Sept. 2018 – Sept. 2022

Shiraz University of Medical Sciences, Shiraz, Fars, Iran

Thesis: “Evaluation of applicability of a newly designed sensor for electrical power upper limb prosthesis in people with below elbow amputation.”

GPA: 3.52/4

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## PROFESSIONAL EXPERIENCE

### Graduate Teaching Assistant

Aug. 2023 – Present

University of Utah, Salt Lake City, UT, US

- Instructed lab for the “Computer-based problem solving for engineering systems.” Course.
- Guided 150 students through programming a robot using Arduino IDE and MATLAB.
- Enhanced classroom learning by teaching debugging and problem-solving strategies.

### Graduate Research Assistant

Feb. 2024 – July 2024

Utah Wearable Robotics Lab, University of Utah, Salt Lake City, UT, US

- Designed Experiments to address limitations in prototype neck exoskeletons.
- Led research projects and analyzed biomechanical data to improve the design and performance of the devices.
- Collaborated with the University of Utah Hospital Neuroscience Clinic to recruit ALS patients for study.

### Internship in Orthotics & Prosthetics Clinic

Feb. 2022 – Sep. 2022

Shiraz University of Medical Sciences, Shiraz, Fars, Iran

- Conducted patient assessments to determine optimal orthotic treatments.
- Developed customized passive orthosis for the lower limb, upper limb, and spine.

### Internship in Orthotics & Prosthetics Clinic

Aug. 2021 – Feb. 2022

Iranian Red Crescent Society, Shiraz, Fars, Iran

- Consulted with amputees to design and fabricate customized prostheses.
- Evaluated fit and functionality of prostheses through user trials.

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## PROJECTS

### A control system for a powered prosthetic knee — Course: Wearable robotics

- Recorded biomechanical data during cycling to design a high-level impedance controller based on that.

### Modeling intervertebral forces — Course: Advanced Mechanisms

- Implemented a series of elastic elements and developed a CAD model to regenerate intervertebral forces.

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## SKILLS

- **Programming:** MATLAB, Arduino IDE, RStudio (statistical analysis), Python, LabVIEW, LaTeX
- **Software:** SOLIDWORKS, Vari CAD, OpenSim, Microsoft Office (Word, Excel, PowerPoint)
- **Hardware:** microcontrollers, inertia measurement units (IMU) sensors, motion capture systems (VICON), surface electromyography (EMG), electro-mechanical devices
- **Manufacturing:** 3D printing & rapid prototyping, CNC machine, carbon fiber molding, life casting, soldering, silicone molding, thermoplastic forming, sanding machine, drilling.
- **Soft skills:** written & oral communication, project management, problem-solving & troubleshooting
- **Specialty skills:** wearable robotics, biomechanics, medical device, design & control, mechatronics, DOE, GCP

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## HOBBIES

Weightlifting/ Playing tennis/Listening to music/ Watching movies/Cooking