

Arya Parvizi

Born on August 7th 1998 in Shiraz, Gender: Male

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Education

Master of Computer Science
UNIVERSITY OF NEW BRUNSWICK
GPA: 3.9/4.3

Fredericton, NB, Canada
2023 - Present

Bachelor of Computer Engineering
SHAHID BEHESHTI UNIVERSITY
GPA: 3.09/4 (15.48/20), GPA last two years: 3.07/4 (15.36/20)

Tehran, Iran
2017 - 2022

Work Experience

Concealand Game Studio
GAME DEVELOPER INTERN

Tehran, Iran
February 2023 - April 2023

Procedural Content Generator (Procedural Animation for a Humanoid Character).
Worked with Unity3D IK frameworks and animation rigging package.
Getting familiar with Unity ML model training system.
Researched the applications of Reinforcement Learning, Imitation Learning, Curriculum Learning in the humanoid animation of Computer Graphics and Robotics subjects.

NAO Research and Development Group
ROBOTICS ENGINEER INTERN

Tehran, Iran
July 2021 - September 2021

Responsible for Robot motion and A.I.
The project was implementing an autonomous control system for SBU omni-directional robot. Applied Localization and Mapping algorithms using ROS2 slam libraries with LIDAR sensors.
Applied Maze Solving, Obstacle avoidance, and Navigation algorithms using Python3.
Fixing the 3D Model in Webots which was causing a dynamic motion failure and getting familiar with robot 3D models, URDF and Proto, and the SBU omni-robot structure in Webots.
Setting Up the ROS2 platform for the robot and getting familiar with the ROS2 networking protocols and architectures.

Skills

- **Programming Languages** : Python, Java
- **Frameworks and libraries** : Keras/Tensorflow, OpenCV, Scikit-learn, Seaborn, Pandas, Node.JS, React
- **Databases** : PostgreSQL
- **Engines and Simulators** : Webots Simulator, Unity Game Engine, Robocup Soccer Simulator, Gazebo Robot Simulator, OpenAI Gym
- **Industry knowledge** : Computer Vision, Image Processing, Machine Learning, Reinforcement Learning
- **Operating Systems** : Windows, MacOS, Ubuntu, Raspbian
- **Miscellaneous** : Robot Operating System(ROS), GIT, LaTeX, Microsoft Office
- **Language Skills** : English IELTS scores : Overall Bandscore: 7.5 Listening: 8, Reading: 9, Writing: 6.5, Speaking: 7,

Educational Experience

- **Research Assistant**

HUMAN-ROBOT INTERACTION LABORATORY, COMPUTER SCIENCE AND ENGINEERING FACULTY

September 2023 - Present

Under Supervision of Professor Daniel Rea

- **Teaching Assistant**

INTRODUCTION TO GAME DEVELOPEMENT

Winter 2024

Instructed by Professor Daniel Rea

- **Laboratory Member (Researcher, Co-Manager)**

ROBOTICS LABORATORY, COMPUTER SCIENCE AND ENGINEERING FACULTY

Summer 2021 - Present

Under Supervision of Professor Armin Salimi-Badr

- **Teaching Assistant**

INTRODUCTION TO ALGORITHMS DESIGN

Fall 2022

Instructed by Professor Ramak Ghavamizadeh

- **Instructor**

INTRODUCTION TO ROBOTICS

Summer 2022

Robotics Laboratory, Computer Science and Engineering Faculty

- **Teaching Assistant**

DIGITAL LOGIC CIRCUITS

Spring 2019

Instructed by Professor Hamidreza Mahdiani

Publications

Generating Hand-Written Symbols With Trajectory Planning Using A Robotic Arm

2023 13TH INTERNATIONAL CONFERENCE ON COMPUTER AND KNOWLEDGE ENGINEERING (ICCKE)

27 Nov 2023

[\[more info\]](#)

Projects (Chronological Order)

Impacts of Integrating Social Interfaces into Tele-operated Human-Robot Interactions and its Effects on Operator Behavior (Course Project)

HUMAN-ROBOT INTERACTION

Winter 2024

Comparing Effects of Visual and Vocal Embodied Feedbacks on User Experience and Stimulus (Hobby Project)

MIXED REALITY

Winter 2024

Implementation and Analysis of Binary Index Trees for Historical Blockchain Databases (Course Project)

BIG DATA SYSTEMS

Winter 2024

Comparing Relative Aim Control Schemes with Mouse and Controller with Aim Assistance Techniques And Gyro sensor (Course Project)

INTERACTIVE HUMAN-CENTERED SYSTEM DESIGN

Fall 2023

Implementation of Encoder-Decoder LSTM Network Towards Synthetic Summarized Titles From Indian News Reports (Course Project)

NATURAL LANGUAGE PROCESSING

Fall 2023

Likelihood Calculation for Student Success Based on Preprepared Dataset (Course Project)

MACHINE LEARNING

Fall 2023

Learning Hand-Written Digit Patterns Using Robotic Arms (Bachelor Thesis Project)

SUPERVISOR: PROFESSOR ARMIN SALIMI-BADR / REFEREE: PROFESSOR YASER SHEKOFTEH

Summer 2022

[\[more info\]](#)

Heater/Cooler Control System (Course Project)

EMBEDDED AND REAL TIME SYSTEMS INSTRUCTED

Fall 2021

Classification of Different Car Brand Models (Course Project)

FUNDAMENTALS OF COMPUTATIONAL INTELLIGENCE

Fall 2021

Simple Bitcoin Estimator Using Regression (Course Project)

FUNDAMENTALS OF COMPUTATIONAL INTELLIGENCE

Fall 2021

Survivability Likelihood of Titanic Passengers Data Analysis (Course Project)

FUNDAMENTALS OF COMPUTATIONAL INTELLIGENCE

Fall 2021

E-Puck Robot Wall Following and Obstacle Avoidance Using Bug Algorithms (Course Project)

PRINCIPLES OF ROBOTICS

Spring 2021

Analysis and Optimization of the Shazam Algorithm Toward Music and Signal Recognition (Course Project)

MATLAB PROGRAMMING WORKSHOP

Fall 2020

Real-Time Background Blurring for Webcams (Course Project)

COMPUTER VISION

Fall 2020

An Implementation of Decaf Compiler (Course Project)

COMPILER DESIGN

Fall 2020

Automated Scheduling and Course Selection for Students (Course Project)

ARTIFICIAL INTELLIGENCE

Fall 2019

Eight Puzzle Platform and Solver (Course Project)

ARTIFICIAL INTELLIGENCE

Fall 2019

Honors and Awards

RoboCup IranOpen2023 International Competitions, Soccer 2D Simulation League

RANKED 3RD - AS A MEMBER OF R3CESBU TEAM

Spring - 2023

The Best Bachelor Thesis Project

NOMINEE

Summer - 2022

ROBOIUT2021, Webots' Line Follower league, Isfahan university of technology

RANKED 1ST

Fall - 2021