Rajan Sawhney

2250 Patterson St, Unit No. 156, Eugene, Oregon 97405 | (541)-954-4110 | rsawhney@cs.uoregon.edu
LinkedIn: https://www.linkedin.com/in/sawhneyrajan

EDUCATION

University of Oregon, Eugene, Oregon

M.S., Computer and Information Science, May 2017 **GPA** : 3.45

Relevant Coursework

Software Engineering, User Interfaces, Artificial Intelligence, Algorithms and Complexity, Advance Data Structures and Distributed Systems

University of Pune, Pune, Maharashtra, India

Bachelor of Engineering, Information Technology, May 2013

PROJECTS

Cluster controlled autonomous hauling system (Coursework, May 2016)

- Developed a distributed system that allows Arduino based Ringo robots to work in communication with a central server. Used Ricart-Agrawala and Supervisor-worker algorithms to develop the system.
- Developed using Raspberry PIs to form the cluster, Python for program development, and Arduino.

Virtual Buttons (Individual Project, May 2016)

- Created an android application using Unity and Vuforia to create Virtual Buttons to interact in an augmented-reality setting.

Simulation of Random Walk using MPI (Coursework, October 2015)

- Developed a project using C/C++ that simulated a Random Walk over a big graph data set.
- Used Message Passing Interface (MPI) for process-to-process communication.

Monitoring IoT Systems (Research Project, October 2015)

- Used Python and InitialState visualization, to develop an application to monitor the system activity of a cluster of Raspberry-PIs.

Face recognition using PCA, SVM and SOM (Coursework, October 2015)

- Developed a MATLAB project to study various approaches used to address the face recognition problem like Principal Component Analysis(PCA), Support Vector Machine(SVM) and Self-Organizing Map(SOM).

Emotion Based Music Player (Coursework, January 2013)

- Developed a music player application in MATLAB that utilizes emotion recognition to play different categories of music, depending on the facial expression displayed by the user. Created and constructed the algorithm to detect the facial expression.

TECHNICAL SKILLS

Languages: C, C++, Python, MATLAB, JavaScript, CSS, HTML, Java, Arduino, SQL

WORK EXPERIENCE

Accenture Services Pvt. Ltd, *Associate Software Engineer* (October 2013 – December 2014, Pune, India)

- SAP ABAP Technical Analyst - Performed analysis and code changes in ABAP programming to correct functionality and usability issues related to the system. Successfully resolved over 50 critical system related issues affecting the client's business.

TEACHING EXPERIENCE

Graduate Teaching Fellow, to Prof. Patrick Holleran, *University of Oregon* (March 2016 – Current)

- Taught students HTML/CSS and JavaScript as part of the *Introduction to Web Programming* course

Teaching Assistant, to Prof. Stephen Fickas, *University of Oregon* (October 2015 – December 2015)

- Taught students to program Raspberry PIs using Python as an introduction to IoT as part of the *Hands on with the Internet of Things(IoT)* course

LEADERSHIP EXPERIENCE

- **Event Head** of the Soccer Tournament at VIIT, University of Pune (March 2012 – April 2012)
- **Captain** of the IT departmental Soccer Team at VIIT, University of Pune (August 2009 – May 2013)