Ramneek Chhatwal

ramychha@gmail.com | (864) 901-3430 | Clemson Area | ramneekchhatwal.com | linkedin.com/in/ramneekchhatwal/

EDUCATION

Clemson University — Clemson, SC
Bachelor of Science in Computer Science (Previously Computer Engineering, B.S.) — GPA: 3.62/4.00
Mathematics Minor — Dec 2021

SKILLS

Programming Languages: Python, React.js, Git, Java, C++, R, C, HTML5, CSS, MATLAB, x86 Assembly
Methodologies and Protocols: Agile Methodologies, MVC, UML, Zigbee Wireless Protocol
Operating Systems: MacOS, Linux, Windows

CORE COMPENTENCIES

Bias for Action	Leadership	Problem Solving	Results Driven
Project Management	Analytical Skills	Communication Skills	Business Acumen

WORK EXPERIENCE

Itron, Inc. (3 Co-op rotations) — West Union, SC
Product Management and Network Development — Jan 2019 – Aug 2020

- Developed an integration between an Amazon Echo and an Itron meter through a Raspberry Pi; created code in Python and the Bluetooth wireless protocol to connect the Raspberry Pi to the Amazon Echo; used previous code written in C and the Zigbee wireless protocol between the meter and the Raspberry Pi
- Tested meters by completing sniffer traces on Zigbee connectivity to valid devices and sending synthetic loads
- Worked on creating a REST API that optimized Bluetooth and Zigbee wireless protocols to transmit metrology data
- Travelled to Canada to help analyze and fix manufacturing issues on ~140,000 new meters to be deployed
- Managed all cloud devices and delegated on-site engineers to fix connectivity issues on pilot program to place ~120 Zigbee routers in homes to transmit data to cloud
- Put in charge of designing and prototyping hardware to allow ConEd NY to comply with new grid safety and National Electric Code protocols; created a technical document on installation, parts, and suppliers.

PROJECTS

Website Portfolio – Written in React.js with a Bootstrap template, I created this project as a way to showcase a more detailed form of my resume, along with links to all of my projects that I have accomplished. I used this project to learn React.js and further my knowledge of Bootstrap.

2-D Game Engine – Written in C++, this semester long school project was to create a 2-D game and game engine using the SDL 2.0 library, implementing parallax, collisions, sprite animations, as well as UI.

ConnectX Game with GUI – Written in Java, this semester long school project was to use software development principles to create a version of the popular game Connect4.

PPM Image Manipulation – Written in C++, this semester long school project was to create an image parser and manipulator for an image encoded using PPM. This program used shape coordinates given by a user to create an image. In this project, I used topics of polymorphism and abstraction.

UNDERGRADUATE RESEARCH – CREATIVE INQUIRY

Injured Military Veteran Adaptive Sport and Paralympic Soccer Program Development — Jan 2018 – Present

- Objective 1: Provide adaptive sport activities coupled with community support and leadership services to Veterans with Disabilities and injured members of the Armed Forces
- Objective 2: Establish a Paralympic Soccer Team at Clemson and assist in the United States Paralympic Soccer Team

Robot Control Using MATLAB — Aug 2017 – Dec 2017

- Objective: To learn engineering and design principles by building and programming robots using Lego Mindstorms and MATLAB