

# Ramneek Chhatwal

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## EDUCATION

### Clemson University

*Bachelor of Science in Computer Science (Previously Computer Engineering, B.S.)  
Mathematical Sciences Minor*

Clemson, SC  
GPA: 3.65/4.00  
Dec 2021

## WORK EXPERIENCE

### Ally Financial

Cloud Operations Engineer

Charlotte, NC  
July 2022 - Present

- Developed Terraform code for a POC of a project management system fully hosted in AWS for our Early Talent bootcamp
- Created Ansible script that performs automated health checks every 4 hours on the Oracle DB's that are used in production.
- Created monitors and alerts in Datadog and Splunk that have been used in triaging production incidents for the cloud instances of our deposits flow.
- Inherited and further developed a sentiment analysis algorithm that processes VOCs (Voice of Customers) and sends daily snapshots.
- Facilitate and govern IAM role provisioning in our cloud production environment for all of our application teams which includes updating Terraform code and strict requirements elicitation to ensure the principle of least privilege.

### Windstream Communications

IP Engineering Intern

Greenville, SC  
May 2021 – Aug 2021

- Developed Python script to alert and create a JIRA ticket when a Windstream serviced market fell below an available IP threshold, eliminating the possibility of a stale market
- Developed Python script to web scrape IP metrics for all Windstream markets and store in InfluxDB
- Visualized overall summary and individual IP metrics for all Windstream markets using Grafana
- Developed Python script to compile a list of the CIDR representation of free IP space available to be distributed to other markets
- Researched and initiated automation projects that were pitched to Windstream executives to continue development on

### Itron, Inc. (3 Co-op rotations)

Product Management and Network Development Intern

West Union, SC  
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

Clemson Makerspace x AWS – Captstone Project – Developed, designed, and integrated a sign-in and management system for the Clemson Makerspace into a single system for a fast and robust user experience. Built using AWS tools for the backend, with an Angular driven frontend and overseen by AWS software engineers.

Website Portfolio – Written in React.js with a Bootstrap template, created project to showcase a more detailed form of personal resume, along with links to all projects.

## UNDERGRADUATE RESEARCH AND LEADERSHIP– CREATIVE INQUIRY

*Injured Military Veteran Adaptive Sport and Paralympic Soccer Program Development*

Jan 2018 – Dec 2021

- 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
- Completed Mental Health First Aid and Adaptive Sport Certifications.

## SKILLS

Programming Languages: Python, C++, C, Java, React.js, YAML, JSON, R, HTML5, CSS, MATLAB, x86 Assembly

Methodologies and Protocols: CI/CD, Kanban, AWS Well-Architected Framework, Agile Methodologies, MVC, UML, Zigbee Wireless Protocol, REST API

Operating Systems: MacOS, Linux, Windows

AWS Tools: API Gateway, CDK, CloudFormation, CloudWatch, DynamoDB, EC2, IAM, IoT, Lambda, RDS, S3, SNS, SQS, VPC

Tools: Terraform, Git, Ansible, Bitbucket, Gitlab, GitHub, Visual Studio Code, Splunk, Datadog, Vim, Azure DevOps, Jira, Confluence, GitHub Actions, InfluxDB, Grafana, Replit, SQLite3, Oracle SQL

## CERTIFICATIONS

AWS Certified Cloud Practitioner: Issued by Amazon Web Services (AWS) in April 2022.

Mental Health First Aid: Issued by National Council for Mental Wellbeing in May 2021.

Certified Adaptive Recreation & Sports Specialist – 1: Issued by BlazeSports America in December 2020.