Ramneek Chhatwal

ramychha@gmail.com | (864) 901- 3430 | Charlotte, NC | ramneekchhatwal.com | U.S. Citizen

EDUCATION

Georgia Institute of Technology — Remote
Master of Science in Computer Science — GPA: In Progress
Specialization in Computing Systems — Dec 2026

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

WORK EXPERIENCE

Ally Financial — Charlotte, NC
Cloud Site Reliability Engineer — Jan 2022 - Present

- Developing Python script to allow for automatic code deployments to reduce deployment time by ~1hr each deployment.
- Developed Python script and Terraform code to template monitoring services based on industry recommendations for all application teams to use.
- Pioneered a SplunkDB Connect connection with our MySQL Aurora databases to allow use to further monitor our instances using Splunk.
- Update engine version and clean-up RDS instances to eliminate ~$60,000 per year in cost.
- Created a monitoring framework for Snowflake errors with AWS using SNS, lambda, and Python.
- Championed an enterprise-wide Site Reliability Engineering community of practice.
- 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 our application teams which includes updating Terraform code and strict requirements elicitation to ensure the principle of least privilege.

Windstream Communications — Greenville, SC
IP Engineering Intern — 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) West Union, SC

Product Management and Network Development Intern 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
- Designed and prototyped 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

Alternakraft – Developed and designed an end-to-end application to simulate data aggregation regarding households in the United States, specifically around alternative power sources and other household properties. Built front end using Flask, middleware with Python, and backend using MySQL RDMS.

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 and Python 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 (6 years), C++, C, Java, React.js, YAML, JSON, R, HTML5, CSS, MATLAB, x86 Assembly

Common Python Libraries Used: Flask, NumPy, Pandas, Tkinter, MatPlotLib, Requests, OpenCV

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, PostgreSQL, MySQL

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.