# Hemendu Roy

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#### **SUMMARY**

Computer Science graduate student with 2+ years of experience in software development, object-oriented programming and microservices deployed in the cloud. I am seeking Summer 2022 internship opportunities.

#### **EDUCATION**

## Candidate for Master of Science in Computer Science

Expected May 2023

Arizona State University, Tempe, AZ

3.89 GPA

Software Security, Mobile Computing, Cloud Computing, Advanced Network Security,

Distributed Database Systems

#### **Bachelor of Engineering in Electronics & Communication**

2015 - 2019

R.V College of Engineering, India

3.84 GPA

Applied Mathematics, Advanced Data Structures, Java, Computer Communication Networks

#### **TECHNICAL SKILLS**

Languages: Java, Python, C/C++, Bash, Scala

**Technologies:** Amazon EC2, Azure, Google Cloud, SQS, Kubernetes, Docker, Hadoop, Cassandra, PostgreSQL, Oozie, Kafka, Ansible, Android Studio, Jenkins, Datadog, Grafana, VMWare, KVM, numpy, pandas, scikit-learn, ghidra, wireshark, Git

#### PROFESSIONAL EXPERIENCE

## SEFCOM Laboratory at ASU, United States: Cybersecurity Research Assistant

10/2021 - Present

I'm working on integrating Open Source 5G implementations such as free5gmano, free5gc and UERANSIM together and subsequently scanning for security vulnerabilities.

#### HPE Aruba, India: Software Engineer

09/2019 - 05/2021

- Aided in the development of predictive Network Insights by consuming live telemetry data from millions of Access Points using Scala.
- Developed scripts for Test Automation, Application Deployment and Data analysis using Spark and Python.
- Recognized with three "Aruba Recognition Awards" for outstanding performance

## HPE Aruba, India: Cloud Engineer Intern

01/2019 - 07/2019

Implemented a Hadoop NameNode High Availability Architecture to ensure seamless failover of several applications scheduled in YARN and Oozie.

#### **PROJECTS**

#### **SmartHome Gesture Recognition**

2021

Designed a mobile app that records and sends video footage to a server that employs a CNN model to classify gestures.

- Developed the app using Android API 28 and Java
- Used Flask to create an API
- Employed cosine similarity to perform gesture recognition using a Convolutional Neural Network model

BrainNet 2021

Demonstrated liveness detection of brain signals and compared performance parameters of several supervised and unsupervised Machine Learning models such as Support Vector Machines, Random Forest and Multi-Layer Perceptron Classifiers

## **Scalable Facial Recognition System**

2022

Developed a multi-tiered Facial recognition system

- Used Flask and Gunicorn to create a web server
- Implemented the backend with autoscaling using Python
- Used Amazon S3 to store data and Amazon SQS to relay messages

#### **Open-source contributions**

triangles – A python module that calculates triangle attributes using the Law of cosines and the Law of sines.

## EXTRACURRICULAR EXPERIENCE

The Math Company Triathlon Winner (2018): Programming, Business Acumen and Mental Aptitude competition for undergraduate students to compete for a placement opportunity.