

# SAMBHAV ANANT RAKHE

*Master of Science in Professional Computer Science*

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## **Professional Summary:**

- 2+ years of experience in Software Development.
- Experience in working with and programming for various cloud technologies.
- Strong programming background with project experience in Big Data and Machine Learning technologies.

## **Technical Skills:**

- **Programming:** Python, Golang, Java, C/C++, HTML/CSS, JavaScript, TypeScript, SQL.
- **Frameworks/Tools:** Django, Flask, Hadoop, PySpark, Cassandra.
- **Libraries/Technologies:** React, Pandas, NumPy, SciPy, Plotly, scikit-learn, MapReduce, YARN, AWS technologies (S3, EC2, EMR, DynamoDB, Kinesis, Lambda, Redshift, KMS), GCP, Azure.

## **Technical Work Experience:**

### **Software Engineer**

**Aug 2020 – Sept 2021**

*Uptycs – India*

- Overhauled and streamlined the cloud testing framework by creating one using Python 3.
- Developed programs to interact with various cloud technologies; AWS, GCP and Azure.
- Ported older APIs into faster, error prone APIs using Golang.

### **Software Engineering Intern**

**May 2020 – July 2020**

*Uptycs – India*

- Reduced costs associated with software testing drastically by implementing the cloud dependency locally.
- Developed scripts to interact with this local cloud implementation.
- Fixed bugs in the local implementation software for API calls of the cloud services.

### **Big Data Trainee**

**Jan 2019 – June 2019**

*Hewlett Packard Enterprise – India*

- Learned programming for Big Data using Hadoop and obtained the HPE certification in Big Data. Also, contributed on working with multiple internal projects.

## Selected Projects:

### **Mental Health Analysis [Big Data Lab – 1]:** [mental-health-analysis](#)

**Sept 2021 - Dec 2021**

*Python, Flask, Plotly, PySpark, AWS S3, AWS EMR*

- Successfully generated a mental health score for all the Canadian Provinces and an overall mental health score for Canada by developing a Machine Learning model.
- Generated plotly dashboards that helped answer important questions related to mental health and factors that affect the mental health of people living in a region.
- Performed this analysis in real time using AWS EMR by integrating a connector to it in the Flask application.

### **[Intrusion Detection System](#): Collaborative Attack Generation and Detection using Machine Learning**

**Techniques [Machine Learning]**

**July 2019 – June 2020**

*Wireshark, Oracle VirtualBox, Python, Scrapy, Sklearn, Bash Scripting*

- Achieved the accuracy of 99.847% in detection of malicious data packets by developing a machine learning model that detects collaborative attacks.
- Generated malicious data packets by simulating network attacks and captured data packets using Wireshark.

### **Password Manager [Personal Project]:** [pass-manager-py](#)

**May 2018 – July 2020**

*Python, Tkinter, MongoDB, Flask*

- Created a popular open-source software by making the repository contribution friendly.
- Developed a robust python-based password manager application in various forms, TUI and GUI.

## Education:

### **Master of Science in Professional Computer Science, Big Data**

**Sept 2021 – Present**

*Simon Fraser University, British Columbia, Canada*

### **Bachelor of Engineering – Computer Engineering**

**June 2016 – May 2020**

*Savitribai Phule Pune University, Maharashtra, India*

- Relevant Courses: Machine Learning, Advanced Data Structures, Design and Analysis of Algorithms, Database Management Systems

## Certifications:

### **98-381: Microsoft Technology Associate: Introduction to Programming using Python**

**Sept 2020**

*Microsoft*

### **Hands-On Hadoop**

*Udemy*

**March 2020**

### **R and Python Programming**

*APG Learning*

**Sept 2019**