Prachitee Maratkar

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EDUCATION

Master of Science in Computer Science | University of Colorado Boulder **Aug 2022 - Present**
GPA:- 4/4
(Relevant courses:- Natural Language Processing, Neural Networks and deep learning, Big Data Architecture, Big Data Analytics, Design and Analysis of Algorithms)

Bachelor of Technology in Information Technology | Cummins College of Engineering, Pune, India **Aug 2016 - Oct 2020**
CGPA:- 8.86/10
(Relevant courses:- Algorithms, Machine learning, Cloud Computing, Database Management Systems, Big Data and Analytics

TECHNICAL SKILLS

- **Programming Languages** - Python, Java, Shell, C, R
- **Databases** - PostgreSQL, MongoDB, MySQL
- **Cloud Platform** - Microsoft Azure
- **Tools & Platforms** - Git, GitLab, Teamcity, Nexus, AppDynamics, Moogsoft, HashiCorp Vault, ELK stack, NLTK, spaCy
- **Frameworks** - SpringBoot, Docker, Kubernetes, Tensorflow, Pytorch
- **Methodologies & APIs** - Agile, Scrum, JSON, REST

WORK & INTERNSHIP EXPERIENCE

Software Engineer, **UBS** **Aug 2020 - Oct 2021**

- Redesigned a business-critical multi-instance application by incorporating a data processing pipeline using **Logstash and Apache Kafka,** and managed to **reduce** the **processing time** of real-time instrument and trade level events **by 25%**
- Containerized and hosted several application instances as **microservices** in three regions (APAC, EMEA & AUS) using **Azure Kubernetes Service**
- Served as a **subject matter expert** on **HashiCorp Enterprise Vault** and developed a generic reusable **Java**-based utility to fulfill secure credential management for **150+** business-critical applications
- **Containerized** and **re-engineered** a **Springboot**-based reporting application by implementing **EhCache** as an in-memory data storage solution backed with **Oracle** database

Software Developer Intern, **UBS** **May 2019 - July 2019**

- Learned various DevOps tools - Kubernetes, Docker, Puppet, and Gitlab by analyzing the development lifecycle for multiple applications under the **DevOps** team
- Wrote **automation scripts** using **shell** script and **python** with a focus on simplifying various migration tasks
- Drastically **reduced lead time to market** for an application by automating the integration and deployment process with a **CI/CD pipeline**
- Built an **android application** for the management of CSR activities as a part of the **UBS Hackathon 2019**

ACADEMIC PROJECTS

Hearing the unheard, seeing the unseen: Automated sign language recognition for emergency situations **Nov 2022 - Dec 2022**

- Successfully achieved **96% accuracy performance** with a deep learning based solution which performed classification of long-range video sequences of indian sign language gestures into eight categories of emergency words
- Carried out feature extraction with the pretrained Vision Transformer(ViT) and used BiLSTM network for sequence classification
- Tools/Languages used: Python, OpenCV, Katna, HuggingFace, Keras, Tensorflow

Legal Named Entities Extraction (L-NER), SemEval 2022 **Oct 2022 - Dec 2022**

- Worked in a team of 3 members to perform entity recognition on a dataset of Indian legal documents using two different transformer based **deep learning approaches**
- Used LegalBert pretrained transformer for generating feature embeddings and did entity level sequence labeling using LSTM network
- Carried out input sequence encoding and tag-label decoding with BERT-base-cased transformer using SimpleTransformers
- Tools/Languages used: Python, HuggingFace, Keras, Tensorflow, SimpleTransformers, SpaCy, Pandas

Microsoft Azure-based IoT monitoring platform **Sept 2019 - April 2020**
(sponsored by **Espressif Systems India Pvt. Ltd.**)

- **Led a team** of 5 members to develop a **cloud-native application** that allows users to onboard and remotely control their IoT devices
- Produced a prototype to perform a comparative analysis by hosting the application on **AWS EC2** vs **Azure VM** service
- Various serverless computing functionalities were programmed with the **Azure function app** and **API Management service**
- The security needs during user and device connectivity were handled by using **JWT** for basic access authentication and session management
- Tools/Languages used: ESP 32 microcontroller, Mosquitto MQTT broker, Python, Paho MQTT, Azure VM, Azure CosmosDB, Angular 8, Bootstrap