

Muskan Singhal

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EDUCATION

Master of Science, Computer Science

Arizona State University, Tempe, Arizona

August 2019 - May 2021 (expected)

GPA: 3.72/4.0

Bachelor of Engineering, Computer Science and Engineering

PES Institute of Technology, Bangalore, India

August 2014 - August 2018

CGPA: 8.87/ 10.0

TECHNICAL SKILLS

Programming Languages: Java, C#, C, Python

Framework : ASP.NET, Apache Spark, Flask

Web Technologies : JavaScript, HTML, CSS, Bootstrap, jQuery, PHP, Knockout JS, React JS, Node JS, Ajax, REST API

Database : MySQL, PostgreSQL, Microsoft SQL Server

Other tools : Postman, Jira, Slack, Microsoft Office, Selenium, Android Studio, SCRUM, Agile Methodology

Version Control : TortoiseSVN, Github, Git

Data Analysis Libraries : Tensorflow, Keras, PyTorch, NumPy, SciPy, Gensim, Pandas, NLTK, Scikit-Learn, Matplotlib

Coursework : Foundations of Algorithms, Object Oriented Modeling and Design, Data Processing at Scale, Machine Learning

PROFESSIONAL EXPERIENCE

Volunteer Software Engineer Intern, Opportunity Hack

May 2020 - August 2020

- Developing an end-to-end application for RealTimeSTEAM, a non-profit organization. Analyzing trends in popular cultural data on the web in order to introduce STEM/STEAM concepts to children.
- Gathered STEM/STEAM related data from Twitter (Twitter API), Reddit (PRAW), IMDb and Wikipedia (web-scraping).
- Helped in co-ordinating, planning and directing a team of 5 interns.
- Provided data visualization and analysis using Latent Dirichlet Allocation (LDA) topic-modeling.
- Technologies used : BeautifulSoup, Selenium, Gensim, NLTK.

Associate Software Engineer, Electronics for Imaging

August 2018 - April 2019

- Developed a data-processing API for updating and removing merchants from Self-Serve Admin Central Product, a cloud-based web application using .NET framework.
- Created API for generating reports for various devices and customers as well as removed sticky session dependency using C#.
- Technologies used : ASP .NET, Knockout JS, C#, Microsoft SQL Server.

Software Engineer Intern, Electronics for Imaging

January 2018 - May 2018

- Developed a framework to generate printer's simulation data which reduced dependency on printers in EFI network by 90%.
- Automated the workflow by uploading the events to cloud over web-socket connection.
- Documented the workflow and installation steps for end-to-end testing using JMeter.

PROJECTS

ASL Finger Spelling Recognition

Spring 2020

- Developed an Intelligent Android application to segment and classify American Sign Language alphabets and words from videos.
- Technologies used : Tensorflow, OpenCV, Android.

MELODY-Neural Music Generator

Spring 2020

- Comparative study of music generation by neural models developed using LSTM, Bidirectional LSTM and Attention Networks with notes, chords, and rest as features. Performance was evaluated using perplexity score.
- Dataset comprised of MIDI music files consisting of Piano compositions.
- Technologies used : Keras, Music21.

Geo-Spatial hotspot analysis

Fall 2020

- Geospatial Hotspot analysis of New York city's Yellow Taxi dataset using Hadoop, Apache Spark, SparkSQL and Scala. Objective was to apply spatial queries and statistics to spatial-temporal pickup and drop-off data to identify statistically significant hot spots.
- Implemented core functions for Range and Distance spatial queries.

ACHIEVEMENTS:

Received scholarships in Fall 2017 and Spring 2018 for standing in the top 20% of the Computer Science department.

EXTRA-CURRICULAR:

Website Developer and one of the female leaders in Femaleium, a Non-Government Organization to empower women around the world.