

RAGHAV KAUL

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EDUCATION

Arizona State University, Tempe, Arizona

Expected May 2021

Master of Science in Computer Science, **GPA: 3.57/4**

Coursework: Introduction to Artificial Intelligence, Data Mining, Data Processing at Scale, Statistical Machine Learning, Data Visualization, Mobile Computing (ongoing), Human-Computer Interaction (ongoing)

Manipal University Jaipur, Rajasthan, India

August 2015 - May 2019

Bachelor of Technology in Computer Science, **GPA: 8.14/10**

Coursework: Design and Analysis of Algorithms, Operating Systems, Advanced Computer Networks, Software Engineering, Big Data Analysis, RDBMS, Software Quality and Testing

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, JAVA, HTML, CSS, PostgreSQL, SQL, PHP

Tools/Frameworks: Git, JIRA, Confluence, Jupyter Notebook, WordPress, Tableau, Anaconda, Node.js, three.js, Android Studio, Bash Scripting, POSTMAN, Flask, Spark, Blender

PROFESSIONAL EXPERIENCE

Development Intern, Aeeiee, Inc, Tempe, Arizona

June – August 2020

- Designed a cutting-edge Augmented Reality museum experience using Apple's WebKit and Divi in WordPress.
- Built an auto-scaling, responsive 3D model viewer using three.js and jQuery with support for multiple 3d file formats.
- Resolved server-side/client-side ambiguity regarding multiple user logins and user disconnection for a RESTful captive portal.

Project Coordinator Assistant, University Technology Office, ASU, Tempe, Arizona

October 2019 – May 2020

- Optimized resource capacity planning and utilization for 60+ members of the Cloud Acceleration teams.
- Monitored and updated teamwork plans within JIRA and Tempo for each sprint and generated biweekly reports.
- Created schedule plans for project teams and documented action items and major decisions in Confluence.

Product Intern (Computer Vision), Decimal Technologies, Gurugram, India

January – May 2019

- Developed an OCR document scanner using OpenCV and Tesseract OCR for 4 standard identity documents.
- Dynamically cropped region of interest and formatted data using regular expressions to achieve an accuracy of 88%.
- Tested functionality by deploying a local API using POSTMAN and stored information as a JSON response.

Web Development Intern, CBRE, Gurugram, Haryana, India

June – July 2017

- Helped develop and publish a landing page for a residential project using JavaScript, jQuery, and Bootstrap.
- Created and curated content for 10+ CBRE residential projects.

PROJECT EXPERIENCE

Analysis of Amazon Reviews (Python, NLTK, TextBlob, Tableau, HTML, CSS, JS)

May – June 2020

- Generated a hierarchical dashboard of visualizations of Amazon reviews using Tableau for 7 product categories.
- Performed sentiment analysis using NLTK and TextBlob to analyze polarity and sentiment to derive product-wise inferences.

Meal Detection using CGM data (Python, NumPy, Pandas, SciPy, scikit-learn, pickle)

January – May 2020

- Applied supervised and unsupervised learning techniques on CGM data to detect meal intake in diabetic patients.
- Extracted meaningful temporal and frequency-based features from the glucose time-series data.
- Achieved an accuracy of 81% using a linear SVC and 44% using the DBSCAN algorithm.

Large Scale Geospatial Analysis of NYC Taxi Trips (Scala, Apache Spark, SparkSQL, sbt, Ubuntu)

January – May 2020

- Identified statistically significant clusters for taxi pickups in a Spatio-temporal domain using Apache Spark and Spark SQL.
- Retrieved the 50 most significant hot spot cells using the Getis-Ord (G_i^*) statistic.

Compiler Design Projects (C++, Bash Scripting, Ubuntu)

September – December 2019

- Implemented a compiler from scratch by linking instruction nodes for I/O, assignment, and looping statements.
- Constructed a parser for a given input grammar and integrated a type checker enforcing syntactic and semantic rules.
- Calculated useless symbols, first and follow sets and list of terminals and non-terminals for any given context-free grammar.

Movie Recommendation System (Python, NumPy, Pandas, Matplotlib, scikit-learn, Kaggle)

January – May 2018

- Predicted IMDb movie ratings of upcoming movies using supervised machine learning algorithms.
- Implemented Decision Trees, SVM, k-NN, and Random Forests and achieved an accuracy of 84%.
- Recognized a set of important features to draw a similarity score with the viewer's preferences to recommend movies.

Hey Alice! (Python, BeautifulSoup, Google Text-to-Speech, search)

October – November 2017

- Designed a python script for automating web searches via voice command and obtained results on Google Search and Maps.

ACTIVITIES

President, The Music Club, Manipal University Jaipur

August 2017 – May 2018

- Led 4 office-bearers in managing 200+ members. Organized 30+ events promoting talent in the club; initiated a mentorship program, providing free musical training to students, and won several accolades at the individual/club level.