RAGHAV KAUL

(602) 587-6935 • rkkaul@asu.edu • kaulraghav.github.io/ • linkedin.com/in/raghavkaul

EDUCATION

Arizona State University, *Tempe, Arizona*   **Expected 05/2021**
Master of Science in Computer Science, **GPA: 3.67/4**
Coursework: Introduction to Artificial Intelligence, Data Mining, Principles of Programming Language, Statistical Machine Learning, Data Visualization, Mobile Computing, Human-Computer Interaction

Manipal University Jaipur, *Rajasthan, India*   **08/2015 – 05/2019**
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, C++, Java, HTML, CSS, JavaScript, PHP, PostgreSQL, SQL
Tools/Frameworks: Git, Bash Scripting, JIRA, Confluence, Agile, Jupyter Notebook, Android Studio, WordPress, Tableau, Anaconda, Selenium, Node.js, three.js, REST, POSTMAN, Flask, Apache Spark, Axure

PROFESSIONAL EXPERIENCE

Development Intern, Aeeiee, Inc, *Tempe, Arizona*   **06/2020 – 08/2020**
- 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, *Tempe, Arizona*   **10/2019 – 05/2020**
- 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*   **01/2019 – 05/2019**
- 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, India*   **06/2017 – 07/2017**
- 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

Covid-19 Health Monitoring Application *(Java, Android Studio, Python, PHP, JS, HTML, XAMPP, nginx)*   **09/2020 – 11/2020**
- Designed a **symptom tracking** android application that measured user's heart rate and respiratory rate using mobile sensors.
- Wrote a **server-side contact tracing** application by processing location information of 11 subjects from the Yonsei dataset.

Analysis of Amazon Reviews *(Python, NLTK, TextBlob, Tableau, HTML, CSS, JS)*   **05/2020 – 06/2020**
- 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)*   **01/2020 – 05/2020**
- 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)*   **01/2020 – 05/2020**
- 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)*   **09/2019 – 12/2019**
- 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.

Hey Alice! *(Python, BeautifulSoup, Google Text-to-Speech, search)*   **10/2017 – 11/2017**
- 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   **08/2017 – 05/2018**
- 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.