Charan Sankaran

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Education

University of Illinois at Urbana-Champaign May 2021
Bachelor of Science in Computer Science and Statistics *GPA: 4.0/4.0*

- **Relevant Coursework**: Algorithms (In Progress), Computational Photography (In Progress), Statistics and Probability (In Progress), Data Structures, Computer Architecture, Data Visualization, Software Design
- **Organizations and Activities**: Association for Computing Machinery, Reflections Projections (Content Team), ACM Corporate, ACM Outreach, Intramural Basketball
- James Honors Scholars

Experience

Capital One Champaign, IL
Software Engineering Intern *September 2019 – Present*

MathWorks Natick, MA
EDG Software Engineering Intern *May 2019 – August 2019*

- Led a team of interns working on rapid prototyping and development in an Agile environment.
- Designed microservice architectures for CI tool integration and automated backend job handling.
- Implemented web/microservices using Node.js, Flask, and MongoDB and orchestrated the integration between existing and developing services.
- Containerized services using Docker and deployed them on an internal server.

Capital One Champaign, IL
Software Engineering Intern *February 2019 – May 2019*

- Designed database schema and created graph database for lineage data using Amazon Neptune.
- Developed REST API using Flask to query data for different nodes, edges, and subgraphs.
- Created python script for data migration and executed the migration of data into the database.

Worcester Polytechnic Institute Worcester, MA
Research Intern *June 2017 – April 2018*

- Data Visualization: Created data visualizations to implement a behavioral intervention system in an overeating prevention app using an iterative design approach; Built using Android Studio (Java & XML).
- App Development: Developed a modular mobile application using MVC software engineering architecture principles for a citizen science bee tracking application as a part of app development team; Collaborated with project leads and other developer groups to maintain unity and dynamic functionality throughout project.

Projects

Predicting Heart Attack Risk *R & Multivariate Regression*

- Engineered an algorithm, using R programming, that utilizes medical and IoT data to predict the risk of having a heart attack, using multivariate regression and data analysis.
- Final algorithm has an error of **2.45%** for male accuracy and an error of **0.97%** for female accuracy.

Digital Sign-In Application *Android & Firebase*

- Designed and implemented a sign-in application, using Android Studio and Firebase, that access GPS to allow users to sign in based on proximity to a building.
- Implements Firebase real-time database to include encrypted Google user authentication.

Skills

- **Programming Languages**: Python (Flask, Pandas), C++, Java, JavaScript (d3, Node), R, MATLAB
- **Tools & Technologies**: Git, Amazon Neptune, Docker, MongoDB, Android Studio, Firebase, Jira