KESAVAN KUSHALNAGAR

Employment

Symantec — Mountain View, CA
Software Engineering Intern — May 2018 to Current

- Created Django web application for SQL queries on Oracle Database.
- Allow users to query securely, saving an estimated 1000 hours per year and improving response times for customers.
- Automated testing and deployment using ansible, cloud formation templates, and Jenkins.
- Technologies used: Django, Python, Ansible, Jenkins, Amazon Web Services, Bootstrap, Angular.js

Computational Biomedicine Laboratory — Rochester, NY
Research Assistant — Jan. 2018 to May 2018

- Used Machine Learning techniques such as clustering and uncertainty quantification to determine likelihood of arrhythmia in heart attack survivors.
- Reduced input space from thousands of dimensions to 12, which made it feasible to estimate the probability of a heart attack using statistical methods.
- Received scholarship to present paper at SIAM Annual meeting 2018.
- Technologies used: Matlab, Python

REU: Accessibility Multimodal Interfaces — Rochester, NY
Undergraduate Researcher — May 2017 to Aug. 2017

- In Professor Gary Behm's lab, researched and prototyped several tools to improve accessible computing for deaf people.
- Created ranking metric for deaf speech using natural language processing techniques. Co-authored paper which was presented at ASSETS 2017.
- Developed Kinect app for American Sign Language prediction. 70% accuracy in real time using in memory database.
- Technologies used: Python, R, NLTK

Independent Projects

Yu-Gi-Oh Life Calculator for Google Voice Assistant — July 2018

- Created Google Voice Assistant app to keep track of game state in Yu-Gi-Oh.
- Trained model using Dialogflow. Used Firestore DB for backend.
- Scalable to hundreds of simultaneous users. Usable across desktop and mobile platforms.
- Technologies used: Javascript, Dialogflow, Natural Language Processing

Generative Adversarial Network for Yu-Gi-Oh Card Arts — Feb. 2018

- Created a Generative Adversarial Network using a database of thousands of Yu-Gi-Oh Card Arts at DandyHacks 2018.
- Generated 64 interesting card arts after 4 iterations.
- Technologies used: Python, PyTorch

Papers and Proceedings

Glasser, A. T., **Kushalnagar, K.** R., & Kushalnagar, R. S. (2017, October). Feasibility of Using Automatic Speech Recognition with Voices of Deaf and Hard-of-Hearing Individuals. In Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility (pp. 373-374). ACM.

Glasser, A., **Kushalnagar, K.**, & Kushalnagar, R. (2017, October). Deaf, Hard of Hearing, and Hearing Perspectives on Using Automatic Speech Recognition in Conversation. In Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility (pp. 427-432). ACM.

Kushalnagar, K., Dhamala Jwala, & Wang, Linwei. Forward Uncertainty Propagation in Cardiac Electrophysiological Model. Conference talk given at 2018 SIAM Annual meeting. http://meetings.siam.org/sess/dsp_programsess.cfm?SESSIONCODE=65035

Contact

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Education

Rochester Institute of Technology
B.S. Computer Science 2018
3.8 GPA
Dean's list (all semesters)

John Hopkins University
Data Science Specialization Certificate 2017
Series of online courses for full stack data science. Verification on LinkedIn.

Languages

PROFICIENT: Python, R, C/C++
FAMILIAR: Java, SQL, C#, Javascript
FOREIGN: ASL

Activities

RIT Honors Program

RIT Artificial Intelligence Club

American Statistical Association

Data Science Club · President, Founder

Awards

Datafest RIT 2018 · Honorable Mention — Mar. 2018
Used Indeed.com + Meetup.com data for investigating effect of group names on job prospects per city.

Datafest RIT 2017 · Best in Outside Data — Mar. 2017
Used Expedia + Oanda.com data to relate currency strength and travel frequency. Used a random forest to achieve 90% prediction accuracy.

SpaceApps RIT · Galactic Award & People's Choice Award — Apr. 2017
Developed a react.js app with SolCast API to manage daily energy usage by using dynamic battery display. Rated best UI design.