Harshitha Akkaraju

Excited about Cloud and Infrastructure Engineering, JavaScript engines, Distributed Computing and User Interfaces.

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EXPERIENCE

Undergraduate Researcher
June 2018 – Present
Code and Cognition Lab, UW Information School
- Designed and implemented over 4 user-facing components in React.
- Built an internal web tool to accelerate the pace of curriculum creation on a programming tutor.
- Migrated the project from a pseudo-backend to Firebase real-time Database.
- **Technologies**: *Node, React, Express, Python, Firebase Database, SASS*

Undergraduate Researcher
April 2017 – June 2018
Taskar Center, Allen School for CS
- Developed the workflow for aggregating data from multiple datasets from the Seattle Open Data Portal.
- Wrote Python scripts to map the multiple datasets to sidewalk data obtained from AccessMap™, an accessible pedestrian trip planner.
- Designed a database schema and populated a MySQL database with sidewalk data along with other aggregated data.
- **Technologies**: Python, SQL, MySQL, Rest APIs, Mapbox

PROJECTS

Koconut – **Design and Development**
Ongoing
- Designed and developed a web tutor that uses Bayesian Knowledge Tracing to help novices learn introductory programming concepts.
- **Technologies**: *Node, React, Firebase, Express, Material-UI, Jest, Flow, Git*

RemindMe for OneBusAway – **Design and Development**
Ongoing
- An SMS based companion app for OneBusAway. Users can bookmark frequent routes and receive reminders to leave in time for their next bus.
- **Technologies**: *React, Firebase, Node, Twilio*

CubeRule – **Design and Development**
Ongoing
- CubeRule seeks to help developers and security professionals train by creating a cyber range – an intentionally insecure platform where players can score points by hacking its functionality.
Technologies: *React, Go, AWS*

NASA ABOVE Project – **Development**
December 2018
- Developed Python scripts that automated workflows for analyzing airborne and field data from the Butman lab's Arctic field campaign.

Tic Tac Toe – **Design and Development**
August 2018
- Built an AI based tic tac toe game that implements the minimax algorithm to play against the human player.

Ohana – **Interaction Design and Development**
June 2018
- Designed and built a dynamic chore manager for both as an Alexa Skill and a web app.
- **Technologies**: Node, React, AWS, Firebase, Alexa SDK, Git

EDUCATION

University of Washington
Bachelor of Science in Informatics
Concentration in **Software Engineering** and **Human Computer Interaction**

Informatics is the combined study of Systems design, project management and computer science.

Graduating December 2019, 3.6 GPA

SKILLS

Back-End Development
NodeJS, Java, Python, C, Ruby

Front-End Development
HTML, CSS, JavaScript, ES6, React, Redux, Vue, SASS, Bootstrap, Material-UI, Swift

Data Wrangling & Viz
Python, R, REST APIs, Mapbox, Power BI, Jupyter Notebook

Quality Assurance Testing
JUnit (Java), Jest (JS), unittest (Python)

Database Technologies
Microsoft SQL Server, MySQL, Postgres, Google Firebase

Processes
Algorithmic thinking, Compilers, Problem solving, Unit testing, Agile, Version Control, Requirements engineering, Design thinking, Research, Independent learning

LEADERSHIP

Outreach Program Director
UW Society of Women Engineers
Conducted outreach events to expand the image of technology as a rewarding career choice for 100+ undergraduates and K-12 students.

Director of Diversity
Women in Informatics
Planned the 7th Annual WINFO Hackathon, organized company tours, networking events and facilitated conversations about diversity in technology.