

Zizhen Song

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Experience

AMAZON SEARCH SCIENCE AND AI | SDE INTERN | JUNE 2021 – CURRENT

- Implemented full-stack application for tracking infrastructure usage of Search M5 team
- Built CI/CD pipeline using AWS CDK for deploying React website with stateless AWS Lambda backend
- Synthesized interactive ML experiment report from querying MLflow database and AWS Batch

ALLEN INSTITUTE FOR CELL SCIENCE | SOFTWARE ENGINEER INTERN | JANUARY 2021 – CURRENT

- Built R Shiny web applications using Docker containers for visualizing single-cell RNA sequences
- Implemented version-controlled workflows for existing data-processing pipelines

UW CELL BIOMECHANICS LAB | IMAGE-PROCESSING LAB ASSISTANT | MAY 2019 – JANUARY 2020

- Researched image processing techniques for analysis of heart tissues and platelet mechanics to understand causes of heart disease
- Automated biological image analysis by segmenting fluorescent protein imaging of platelets using morphological opening, and flood-fill operations
- Calculated contractional force of platelet cells through displacement evaluation of proteins in contact using MATLAB proprietary programming language

Education

COMPUTER ENGINEERING AT UNIVERSITY OF WASHINGTON | GRADUATION: DECEMBER 2021

- Bachelor of Science in Computer Engineering, GPA: 3.8/4.0
- Related coursework:
 - Algorithms
 - Artificial Intelligence
 - Computer Security
 - Database Systems
 - Data Structures & Parallelism
 - Distributed Systems
 - Networks
 - Software / Hardware Interface
 - Software Design and Implementation
 - Systems Programming
- Honors/Awards: Dean's List (10 quarters)

Projects

DUBHACKS 2020 NEWSPRINT TRACK WINNER | UNINTERRUPTED

- 1st place out of 72 projects submitted to the Newsprint track at the Pacific Northwest's largest hackathon
- Uninterrupted is an Alexa skill that delivers summarized information on the presidential candidates' stances sourced directly from their websites and statements
- Automated text summarization with python scripts that utilized existing natural language processing API's

HUSKY TECH SUMMER PROGRAM 2020 MOST INNOVATIVE | RADIUS | RADIUSQ.ONLINE

- Winner of Husky Tech Summer Program's Innovation category
- Implemented full stack React and Firebase application for streamlining customer traffic flow
- Developed real-time communication channel between businesses and customers with native push notifications and direct messages
- Reduced code base redundancy by 30% by implementing REST API in Node.js

Skills

Languages: Java, JavaScript, TypeScript, Python, SQL, C, C++, HTML, CSS

Technologies: Linux, Git, React, React Native, AWS (CDK, Lambda, CloudFormation, IAM, RDS, Secrets Manager), Firebase, Docker