Sushanth Mukkamalla

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EDUCATION

University of California, San Diego — Graduation: June 2019
Bachelor of Science, Computer Engineering — GPA: 3.68/4.00

WORK EXPERIENCE

Nortek Security & Control (Petaluma, CA Jun.–Sept. 2018)
***Software Engineering Intern* – [Microservices, AWS, Containerization]**

- Utilized Go to add Redis caching layer to a microservice, reducing the number of requests it made to an external API that was being throttled.
- Utilized Dockers to containerize this application so that it could be easily built and deployed on any machine.
- Implemented Kubernetes cluster on a fleet of AWS EC2 instances to easily deploy, build, and run multiple dockerized applications with automatic service discovery and load balancing.
- Implemented ELK Stack to collect, filter, and visualize application logs generated by different services across many AWS EC2 instances.

Fidelity National Information Services Inc. (San Francisco, CA Jun.–Sept. 2017)
***Android Developer Intern* – [Custom Mobile Development]**

- Utilized Java and self-taught knowledge of Android programming to help Customer Integration team add new features to custom mobile banking application, which included password reset, highlighting primary account, and spendable balance calculator.
- Fixed major problem with automated workflow process, using Gradle to add dependencies, handle errors, and change which methods were used form external libraries.

Buck Institute for Research on Aging (Novato, CA Jun.–Sept. 2016)
***Software Engineering Intern* – [Pipeline Automation]**

- Streamlined converting data generated from mass spectrometer into different formats by using Java, Batch scripting and Python.
- Used Java to create a GUI that took variety of parameters (file names, numbers, programs to run), handled errors, and fed parsed data into Batch script that automatically ran selected conversion programs.

PROJECTS

PAQ: Peace and Quiet

- UCSD startup for creating an affordable wearable device that vibrates to awake the user. Aimed towards college students in dorms as an alternative to loud alarms that disturb everyone in the room.
- Used Java and Android Studios to develop an Android application to connect to the device over Bluetooth Low Energy in order to create ans send alarms and timers.

Serverless Text to Speech

- Serverless application that utilizes multiple AWS technologies: Lambda, S3, DynamoDB, API Gateway, SNS, and Polly, to convert user text input into an audio format that can be played or downloaded.

Open Door Alert

- Used C programming, HTML, REST API, an Arduino microcontroller, and other hardware sensors, to create a controller that would send information to a website and indicate if a door has been opened.

Grand PrIEEE Competition

- Worked in a team of 5 to design, test, and implement a robot that can detect an arbitrary track made of white tape and complete it autonomously.
- Used C programming to create an algorithm that would read data from a camera, identify the location of the track, and send messages to the motors to brake, accelerate, and turn.

SKILLS

Languages: Java, C++, C, MySQL, Go, BASH, Batch, Python, SPARC Assembly, JavaScript, HTML, CSS
Tools: AWS, Redis, Dockers, ELK Stack, Nomad, Consul, Kubernetes, Android Studios, Arduino, Git, SVN, Vim, Eclipse, Gradle, Firebase

CERTIFICATIONS

AWS Certified Developer – Associate (Released June 2018)