

# KUNTI NITIN SANDANSHI

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## EDUCATION

<b>University of Georgia</b> <b>Master of Science in Computer Science</b> <ul style="list-style-type: none"><li>Major GPA: 3.86/4.00</li></ul>	Athens, GA May 2023
<b>University of Pune</b> <b>Bachelor of Engineering in Computer Engineering</b> <ul style="list-style-type: none"><li>Major GPA: 8.72/10.00</li></ul>	India November 2020

## PROFESSIONAL EXPERIENCE

<b>Software Developer Intern</b> <ul style="list-style-type: none"><li>Collaborating with a small team of 4 on multiple projects as a Full Stack developer.</li><li>Developing a General Mills project to add features to an existing application, investigating existing bugs and rectifying them using .Net, MySQL and repository pattern, following industry best practices.</li><li>Developing MaxAC project, contributing to design UI, streamlined backend using .Net MVC and AWS.</li><li>Using Azure DevOps to follow agile methodology and for version control.</li><li>Recognized by my mentor for my in depth analysis of problem statements and quick learning abilities.</li></ul>	A&E Engineering, Greenville, SC. December 2022 - <b>Present</b>
<b>Application Developer Intern</b> <ul style="list-style-type: none"><li>Contributed to a team of 6 to develop 4 pages of the Mass Change Tech Refresh process for ADP using Java, JavaScript, HTML, and CSS.</li><li>Developed 13 automated testing scenarios using Java, Selenium, Cucumber, and JSON by coding test scripts.</li><li>Created and resolved 9 Jira stories for several bugs found during automation.</li><li>Implemented snapshot tools to avoid permanent changes to the database while testing.</li><li>Utilized Bitbucket for version control, did code reviews, code deployment in alignment with agile methodology.</li></ul>	ADP, Alpharetta, GA. <b>May 2022 - August 2022</b>

## CERTIFICATION

- Aced the 1Z0-819, **Oracle Certified Professional - Java SE 11 Developer** (OCP) exam.
- Online Certification Courses: Java, AWS, Git, Advance Web Development, Python, Spring-Boot, React

## SKILLS

- Technical Skills: Java, AWS, JavaScript, jQuery, HTML, CSS, SASS, React, Kubernetes, Docker, ASP.Net, C#, Azure DevOps, Python, Git, Data Structures, Angular JS, Selenium, Cucumber, C, C++, Jira, GCP, Flask
- Databases and platforms: MySQL, Oracle SQL, MongoDB(NoSQL Databases), Windows, Linux.

## PROJECT EXPERIENCE

<b>Front-End Projects</b> <ul style="list-style-type: none"><li>Natours Website, a tour booking responsive website: <a href="https://kns1-30.github.io/natours-tour-booking-website/">kns1-30.github.io/natours-tour-booking-website/</a></li><li>Personal website, my portfolio and CV website: <a href="https://kns1-30.github.io/kunti-personal-website/">kns1-30.github.io/kunti-personal-website/</a></li><li>Nexter, a real estate business website: <a href="https://kns1-30.github.io/nexter-realtors-website/">kns1-30.github.io/nexter-realtors-website/</a></li><li>Trillo, a hotel Booking website: <a href="https://kns1-30.github.io/trillo-hotel-booking-website/">kns1-30.github.io/trillo-hotel-booking-website/</a></li><li>Utilized HTML, Advanced CSS, SASS, JavaScript, React.</li></ul>	October 2022 – Present
<b>CI/CD Pipeline Implementation for Reactive Microservices</b> <ul style="list-style-type: none"><li>Architected Continuous Integration pipelines to automate the build, validation, version control processes and run test cases after each commit to the git repository.</li><li>Continuous Delivery pipelines were implemented that will automatically create, configure, delete, and scale the AWS instances to run 12 microservices in 12 different instances.</li><li>Azure DevOps was the SASS platform used to host the pipelines and integrated with AWS EC2 services that ran microservices designed using Java, Spring, and Eureka.</li></ul>	August 2022 - November 2022

### *Skill Squatting Attacks on Amazon Alexa*

September 2022 – November 2022

- Developed skills using Alexa Skill Developer Console and AWS Lambdas to analyze the speech recognition errors made by Alexa. Such errors can be used by attackers to route users to malicious third-party software.
- Data Analysis of JSON files to categorize the words and identify patterns in errors was performed using Python.
- AWS Dynamo DB was utilized for mapping actual to interpreted words. NSP corpus provided the input samples.
- Analysis resulted in the identification of words with a 0% accuracy rate and the range of words that a given input word may be misinterpreted as by Alexa and their respective probabilities.

### *Guaranteeing the End-to-End Execution of FAAS Workflow on Spot Instances*

January 2021 – May 2022

- Objective was to utilize the low cost of spot instances to run time-intensive tasks while addressing the risk of instance revocation with short notice.
- To achieve this, the best fault tolerance mechanism was determined from 5 techniques, to ensure cost-effective application execution and optimal throughput.
- The simulation of AWS spot instances was developed using Kubernetes and Docker to execute time applications.
- The time-intensive tasks were written in Python and Open-FaaS was utilized to simulate AWS Lambdas.

### *Auto-Grader AWS Cloud Project*

March 2021 – April 2022

- Designed and developed a cloud-based auto-grading system that can handle increasing workloads for programming assignments. It checks the submitted code output against the required result.
- Front-end app was developed using Flask. Bash scripts were written to compile and execute the assignment code.
- The system was packaged as Docker Linux containers for efficient resource utilization.
- AWS Elastic Beanstalk was utilized for automatic deployments, management, and scaling of applications.

### *Virtual Context Adaptive Partner for English Language Learners*

September 2019 – August 2020

- Developed a mobile application using Android Studio, created to act as a chat/speech bot - a learning companion.
- It served as a communication partner for people to improve their grammar, vocabulary and speaking abilities.
- API integration was performed with Google APIs and Text gears API for speech recognition, transforming text to speech and vice-versa, and checking for grammar errors.

### *Student Feedback System*

July 2018 – December 2018

- Designed and Developed a Feedback System to gather comprehensive ratings and evaluations of professors and TA's from students through a questionnaire.
- The system was created using Java, Spring Boot, and Maven, and records were stored in MySQL.
- The records were analysed and ratings of staff were dynamically updated based on incoming information.

## **RESEARCH, PUBLICATION and SEMINAR**

### *Research: Leveraging Transient/ AWS spot instances*

August 2021 – December 2021

- How to leverage transient or spot instances to run various workloads to significantly decrease the cost, explore fault-tolerant techniques available to save state, and study instance types.

### *Publication*

May 2020

- "Chatting partner for English language learners", *International Journal of Innovative Research in Technology*. Volume 6 Issue 12, May 2020. Paper ID: 149533.

### *Seminar: Natural Language Processing*

December 2019

- Delivered a seminar on Natural Language Processing; how it could be used to replicate human behavior and act like a tutor for learners of any foreign language.

## **ACCOLADES**

- Topmost rank holder during sophomore year at Pune University, scoring 9.14.
- Ranked 2<sup>nd</sup> in the degree program at Pune University.

## **EXTRA-CURRICULAR ACTIVITIES**

- Secured second rank in Java programming in a technical competition called Telekinesis held by Pune University.
- Participated in Python programming in a technical competition called Innovation held by Pune University.
- Secured national ranking 5 in 'National abacus and mental arithmetic competition', and successfully completed 4 levels of abacus training.