LAKSHAY NANDA

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- **Aspiring Software Developer** with experience in developing and testing web based products using agile software development lifecyle – from concept through delivery of next generation application and customisable solutions.
- **Known for excellent troubleshooting, communication skills and working well under pressure with a team :** able to understand the requirements, analyse the program and engineer well researched and creative responsive solutions with attention to detail.

Education

University of Southern California, Los Angeles   Aug 2021-Present

Master of Science in Computer Science

Vellore Institute of Technology, Vellore   July 2016–June 2020
GPA 3.95/4

Bachelor of Technology in Computer Science

University of Cambridge, Cambridge   June 2019–July 2019
Grade A

Summer Course in Computer Science

Skills

Vue.js | Vuex | Node.js | RESTfulAPI | Git | Strapi.js

AWS Amplify | OOPs | JavaScript | Data Structures

Java | HTML5, Sass | Bootstrap | GraphQL | AGILE

Django Rest Framework | Problem Solving | Debugging

Trello/Jira/Asana | Salesforce

Professional Experience

Anlyz Cybersecure Private Limited, Software Engineer, Bengaluru, India   July 2020–July 2021

- Contributed to the development of key products – Cyberal (with 600+ active users) and Sporact (with 750+ real-time users) using Vue.js and Django. These scalable security systems are used to detect security threats in real-time across the network without needing to learn any proprietary query language. Developed as Cloud Infrastructure to reduce use of system storage by 70% and providing platform independence.
- Constructed REST APIs in DjangoRestFramework for Dashboard and Reporting components of Case Management System to enhance reporting module by adding schedule feature to generate weekly/monthly reports of events and alerts with data visualisation as charts tailored to need at the same time being 40% more cost effective than competition which attracted new stakeholders.
- Materialised a custom dashboard feature with customizable chart widgets for personal dashboard which increased customer engagement by 30%.
- Headed the implementation of DRAIN algorithm to parse unstructured logs and improving log parsing time by 20% which saved time and resources for writing parsers also making the application lighter by 10% and generate event logs faster by 15% from competitors of Cyberal and Sporact.
- Architected an automation tool in Django to actualise custom rules for users to perform automation based on events improving customer adoption by 40%, leading to increase in sales for both Cyberal and Sporact.

Anlyz Cybersecure Private Limited, Intern- Software Engineer, Bengaluru, India   Dec 2019–June 2020

- Revamped Reverss security system, an Endpoint Detection and Response (EDR) web application tool made by utilising Vue.js and Django hence reducing app size by 50% and improving load time by 30%. It is currently being employed by G'Secure Labs and Coats.
- Incorporated Malware Reverse Engineering in Reverss involving binary instruction conversion to code mnemonics to see its impact on parsed logs.
- Instituted a user and group based monitoring by assigning permissions to a group which can be allotted to a user in order to attain given set of permissions to perform tasks and modularising components of system hence reducing effort of individual assignment of permissions by 70% .
- Established whitelist IP system and host server with which login and signup can be performed using OTP mechanism to authenticate users with success rate of 95%.

Projects

- **California State Guard (PROTECT)** - It is a web application developed to identify mission readiness of the service members who will be deployed for missions based on the skill sets that they have. It helps to filter out people perfect for the job using a custom query component developed with Vue.js and data is being stored and queried from Salesforce Database using SOQL. It also contains a dashboard inside of Salesforce CRM developed using APEX.
- **(Patent) Electronic Voting System: Facial Recognition and Biometrics as Security Barriers:** Focussed on creating additional security features including facial recognition and biometrics to secure voting process by removing malpractices with success rate of 90%. App. No.: 202011013061.
- **Full Stack Photobook Web App:** Instigated a web app containing a user authentication system and a profile for each user where an individual can add albums and upload images on to each album with success rate of 100%. Frameworks employed: Vue.js, AWS Amplify and GraphQL.
- **SETI (Search for Extra-terrestrial Intelligence) signal classification : Machine Learning:** Executed archived narrow band signal data taken from real time SETI observations with Allen Telescope Array and a set of digitally assumed signals created to mimic real noticed signals with similarity index of 8.5 on a scale of 10. (IEEE Xplore 2019, pp. 499-504, doi: 10.1109/ICSSIT46314.2019.8987793)
- **Sight for Blind with Panic Button:** Developed a system for visually impaired to understand objects in front. Used TensorFlow along with google text to speech api for conversion of labels to audio with accuracy of 85%. It also has a safety feature to send location to emergency contact. (International Journal of Future Generation Communication and Networking Vol. 13, No. 3, (2020), pp. 1589–1596, ISSN: 2233-7857).
- **Data Encryption Standard Algorithm : Java Remote Method Invocation & OpenMP:** Implemented DES in parallel using JAVA RMI and OpenMP to analyse performance difference by comparing time of execution serially and in parallel. Parallel execution being more efficient and fast by almost 60%. (Journal of Advanced Research in Dynamical and Control Systems, Scopus Indexed, ISSN: 1943-023X).
- **Brain Tumour Segmentation : Fully Convolutional Network:** Implemented FCNN and CRF to ensure appearance and spatial consistency of segmentation results by 75% of brain tumour. (Journal of Multi-Disciplinary Engineering Technologies, ISSN(P): 0974-1771).

Leadership and Involvement

- Earned position of Joint Secretary for IEEE Computer Society, VIT from 2019 to 2020. Trained and mentored juniors on iOS app and Web app development projects as a Core Committee Member at Apple Developer's Group.
- Competed in several national level hackathons including AngelHack and HackIndia amongst others.
- Mentored a group research project at ICMDRSE-19 (International Conference on Multi-Disciplinary Research Studies and Education), Chennai and elucidated critical questions by a panel and led to publishing of research paper.
- Organised IEEE Computer Society, VIT events and workshops at AICSSYC, ARCS and Mozilla Web Development workshop.