LAKSHAY NANDA

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Education

University of Southern California — ***Aug 2021 – May 2023***
Master of Science in Computer Science, currently in 1st semester — ***Los Angeles – USA***

Vellore Institute of Technology — ***July 2016 – June 2020***
Bachelor of Technology in Computer Science, CGPA 9.31/10 — ***Vellore - India***

University of Cambridge — ***June 2019 – July 2019***
Summer Course in Computer Science, A Grade — ***Cambridge – UK***

Skills

Frameworks and applications

Vue.js, React.js, Vuex, Redux, Node.js, Django REST Framework, RESTfulAPI, Git, Strapi.js, AWS Amplify

Languages and its use cases

Java, OOPs, Python, SwiftUI, JavaScript, Data Structures, HTML, Sass, Bootstrap, GraphQL

Professional Experience

Anlyz Cybersecure Pvt. Ltd.

July 2020 – July 2021
Bengaluru, India

Software Engineer

- Developed a SIEM (Security Information and Event Management) web app called **Cyberal** and a SOAR (Security Orchestration, Automation, and Response) web app called **Sporact** developed using frameworks like Vue.js and Django currently being used by companies like G'Secure Labs, Coats, HSBC, Vodafone and T-Mobile.
- Built REST APIs in DjangoRestFramework for Dashboard, Reporting components of Case Management System.
- Materialised a customised dashboard feature for individual user using vue-grid-layout library.
- Initiated and led the implementation of DRAIN algorithm to parse unstructured logs for SIEM which improved log parsing time by 20% and also saved time of developers in writing parsers.
- Introduced an automation plugin tool to create custom rules for users to perform automation based on events using django.

Dec 2019 – June 2020
Bengaluru, India

Intern- Software Engineer

- Worked on the development of Reverss which is an Endpoint Detection and Response (EDR) tool developed as a web application using Vue.js and Django. It is currently being used by G'Secure Labs and Coats.
- It is used for Malware Reverse Engineering. Through this process, binary instructions are converted to code mnemonics to see what systems it impacts.

VMWare

May 2019 – June 2019
Bengaluru, India

Member of Technical Staff : Intern- Software Engineer

- Worked on the development of Carbon Black End point detection and response tool used for vulnerability management and threat hunting. I was working with the frontend team and we used a framework called Vue.js.

Projects

- **Full Stack Photobook Web App:** Currently working on a web app that has a user authentication system and a profile for each user where they can create as many albums for themselves and upload images on to each album. Frameworks being used: Vue.js, AWS Amplify and GraphQL.
- **Events application Web App:** Engineered a web app that stores and manages events using frameworks such as Vue.js, Strapi.js and Gridsome.
- **SETI (Search for Extra-terrestrial Intelligence) signal classification using Machine Learning:** Executed by applying 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. We exhibit that high quality parametric as well as nonparametric classifiers established on automatic visual analysis can attain high levels of intolerance and efficiency, along with low false-positive rates. Published in: 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 actually understand objects that are in front of them. Used TensorFlow along with google text to speech api for conversion of labels to audio. It also has a safety feature which broadcasts location of the person to their emergency contacts through text message. Published in: International Journal of Future Generation Communication and Networking Vol. 13, No. 3, (2020), pp. 1589–1596, ISSN: 2233-7857.
- **Data Encryption Standard Algorithm Using Java Remote Method Invocation & OpenMP:** Implemented DES in parallel using JAVA RMI and OpenMP to analyse performance difference between them. Also compares the time of execution serially and in parallel using these platforms individually. Published in: Journal of Advanced Research in Dynamical and Control Systems, Scopus Indexed, ISSN: 1943-023X.
- **Brain Tumour Segmentation using Fully Convolutional Network:** Used FCNN and CRF to ensure appearance and spatial consistency of segmentation results of brain tumour. Published in: Journal of Multi-Disciplinary Engineering Technologies, ISSN(P): 0974-1771.

Patent

Electronic Voting System which uses Facial Recognition and Biometrics as Security: Focussed on creating additional security features like facial recognition and biometrics to secure the process of voting and remove the possibility of proxy or false voting. Published in: May 2020. Application Number: 202011013061.

Extracurricular Activities

- Earned the 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 the Core Committee Member at Apple Developer's Group.
- Organised IEEE Computer Society, VIT events and workshops like AICSSYC, ARCS and Mozilla Web Development workshop.
- Elected as Co-organiser for college fests called graVITas and Riviera.
- Participated in several national level hackathons like AngelHack and HackIndia.
- Demonstrated the group research project at ICMDRSE-19 (International Conference on Multi-Disciplinary Research Studies and Education), Chennai and elucidated critical questions by the panel successfully which led to publication of the research paper.