Akash Sivakumar

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ACADEMIC QUALIFICATION

Bachelor of Technology in Electronics and Communication Engineering, Amrita Vishwa Vidhyapeetham, Coimbatore; CGPA: 8.0/10; Jun'21

WORK EXPERIENCE

Cognizant Technology Solutions, Chennai ***Aug'21 – Present***

Associate, Aug'23 – Present

- Working closely with product owners and technical leads of the client organization to effectively translate their business requirements into functional models, to eventually increase the user experience of their enterprise CSR application.
- Transforms and enhances their business-line specific intents of the application using various Pega methodologies like REST integrations & APIs, Data Transforms, Activities, UI/UX and Service level agreements.
- Resolves bugs and tickets raised in higher environments to ensure smooth functioning of the features built in the application.
- Collaborates with various interdisciplinary teams to ensure quality and zero escalations in the delivery.

Programmer Analyst, Aug'22 – Aug'23

- Worked closely with technical leads to effectively translate business requirements into functional models eventually increasing the user experience of the application by 30%.
- Transformed existing application using various Pega methodologies like REST integrations & APIs, Service level agreements and UI/UX into an enhanced application.
- Resolved bugs and tickets raised in higher environments to ensure smooth functioning of the features built in the application.

Programmer Analyst Trainee, Aug'21 – Aug'22

- Reported bugs and issues in the enterprise-level application to senior developers, collaborating with them to resolve the issues.

Intern, Combat Vehicles Research and Development Establishment (CVRDE), DRDO, Chennai. ***May'19***

- Gained knowledge in using tools like LiDAR sensors which are specifically used in defense applications.
- Implemented the available Image processing techniques on the point cloud data of different terrains collected from LiDAR sensors and cameras that is placed on the military tanks and tried to predict the type of terrain with the help of statistical analysis.
- Developed a MATLAB GUI-based application to showcase the statistical features of the data.

ACADEMIC PROJECTS

Title: Saline Solution Based Miniaturized Low-Frequency Dipole for UAV based River Monitoring Systems
Duration: Jul'20 – Apr'21
Team size: 4
Summary: Developed a novel minimization technique to incorporate saline solution as a core material with low frequency wire antenna's to efficiently reduce their overall electrical length. This implementation results in a size reduction of 47%. Used tools like Ansys HFSS, MATLAB to simulate, mathematically model and optimize this miniaturization technique to result in a return loss of around -50dB and an overall bandwidth enhancement of 53%.

Title: TDM Based Wireless Overhead Tank Monitor
Duration: Nov'19 - Apr'20
Team size: 4

Description: Designed and developed an IOT-based hardware system to monitor water overflow from overhead tanks by employing the concepts of Time Domain Multiplexing into the transceiver module which acts as a wireless system. Programmed a mobile application and integrated it with the hardware system to provide real-time alerts to users. This efficiently helps the users to control water wastage by 25%.

Title: Object Dimension Recognition from the Image under known environment
Duration: Dec'18 - Mar'19
Team size: 3
Summary: Designed a system to detect the real-time dimensions of the object from a 2D image of that taken under a known environment in the system. Utilized various image processing algorithms like Canny's edge detection, Gaussian blur along with interpolation algorithms in python to detect dimensions with an error rate of 2%.

PUBLICATIONS

- V. S. Boopathi, S. Akash, S. Aravind, B. Raghunath and N. B. Sabarish, "**Saline Solution Based Miniaturized Low Frequency Dipole for UAV based River Monitoring Systems**," 2021 International Conference on Advances in Computing and Communications (ICACC), Kochi, Kakkanad, India, 2021, pp. 1-4, doi: 10.1109/ICACC-202152719.2021.9708266.
  Link: https://ieeexplore.ieee.org/document/9708266

AWARDS & ACHIEVEMENTS

- Received the "**Pat on the Back Award**" Certificate of Excellence from the client organization in November 2023, in recognition of the outstanding contributions made in transforming their CSR application.
- Completed my Professional System Architect Certification (PCSA) provided by Pega in version 8.6 in April 2022.

PRESENTATIONS

- Presented a paper titled "**Saline Solution Based Miniaturized Low-Frequency Dipole for UAV based River Monitoring Systems**" in the 2021 International Conference on Advances in Computing and Communications (ICACC) at Kochi, India in Oct. 2021. This publication got indexed in IEEE Xplore as well as in Scopus.

TECHNICAL SKILLS

- Languages: Python, Pega PRPC, Java, MATLAB.
- Web Technologies: HTML5, CSS3, Pega
- Database: MySQL, Google BigQuery
- Simulation and Software tools: Pega, Tableau, Ansys HFSS
- Additional tools: LaTeX

EXTRACURRICULAR ACTIVITIES

- Volunteered to organize both technical and non-technical events, such as Robo-Soccer, as part of the renowned annual symposium ANOKHA at Amrita Vishwa Vidyapeetham, Coimbatore in the year 2019
- Participated in Robozuna 2019, organized by P.S.G College of Engineering and Technology, Coimbatore, as part of their annual symposium, SRISHTI.