

ASHWIN BALAJI DHANDAPANI

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PROFESSIONAL EXPERIENCE

Graduate Teaching Assistant | Northeastern University, Boston, MA

May 2023 – Present

- Assisted in the delivery of lectures on software design patterns to students, providing guidance and clarifications on complex topics
- Conducted regular code reviews and provided constructive feedback to students on their implementation of software design patterns, helping them improve their coding practices and design skills

Software Engineering Intern | Dassault Systemes, Waltham, MA

Sep 2022 – Dec 2022

- Collaborated with Dassault Systemes' procurement team to integrate 3DSupplyNetwork with Oracle PeopleSoft, saving 500 - 2000 man-hours and ensuring consistent supplier data across both platforms
- Created custom Apache NiFi processors to address various use cases, including authentication, data creation, updating, deletion, and data cleaning which resulted in a loosely coupled middleware system, enhancing reusability and flexibility
- Compared and examined the datasets of the supplier Management tool and the ERP to detect gaps in the data between both the systems
- Performed an in-depth analysis of data usage and transit to facilitate the integration of systems and to determine the system requirements for a CentOS virtual machine where the NiFi instance was to be deployed

DevSecOps Engineer | Gavs Technologies, Chennai, India

Feb 2020 – Aug 2021

- Automated Infrastructure and Application security scan using Flask by employing the TDD approach which reduced the manual intervention by almost 85 %
- Collaborated with Security Operation Centre team to develop a dashboard (Demo) showcasing key metrics to track the compliance of the Endpoints by leveraging the REST API features of the EDR
- Partnered with Development and DevOps team to build a secure application by providing Security Recommendations for applications components as per the OWASP standards for API security, recommending secure DevOps practices for branch security configuration and Application logging
- Participated in code reviews and provided better solutions whenever possible as a member of the security team and as a developer
- Integrated Static Application Security Testing and Dynamic Application Security Testing tools to the CI / CD pipeline, thereby decreasing the security vulnerabilities found by almost 60%
- Carried out VAPT on the application during each release and worked with the developers to fix the issues
- Created a POC for Passwordless authentication for a MERN application using Azure AD
- Implemented SonarQube as the Static Application Security Testing (SAST) tool for the product code base of my previous organization
- Conducted necessary configuration and setup of SonarQube to ensure optimal performance for code analysis
- Collaborated with team members to integrate SonarQube into the software development process, improving code quality and security

Application Development Associate | Accenture Solutions, Chennai, India

Feb 2018 – Jul 2019

- Designed and implemented GUI Dashboard features for Customers Insurance policies utilizing Java Server Pages (JSP), HTML, CSS, JavaScript, AJAX, and jQuery
- Built RESTful web services and utilized Spring Boot, JAX-RS, JDBC, and the JSP Standard tag library to display paginated 100K insurance records retrieved from a MySQL database
- Created comprehensive unit test cases using JUnit to validate the functionalities

TECHNICAL SKILLS

Programming Languages: Java, Javascript, Python, HTML, CSS, TypeScript

Backend Frameworks: Node.js, Flask, Spring, Hibernate

Frontend Frameworks: React.js, jQuery, Java Server Pages ,SCSS, Bootstrap, Material-UI

Databases: Postgres, MySQL, MongoDB, OracleDB

Tools / Software: Git

DevOps Skills: Terraform, Ansible, Jenkins

Cloud: Cloudformation, AWS CLI, AWS SDK, IAM, CloudWatch, Route53, RDS, DynamoDB, VPC, S3, SNS, SES, SQS, CodeDeploy, Lambda

CI / CD Tools: GitHub Actions, Azure Pipelines, Jenkins

Others: RESTful API, Pytest, Junit, Chai.js, Penetration Testing, Apache NiFi, Docker, Kubernetes, Linux, Apache Tomcat, Mockito

ACADEMIC PROJECTS

Cloud Backend Project

- Developed Node.js backend APIs to create user, get user / users information, update user information, delete user information and upload / download / delete media for the user
- Utilized AWS components such as Amazon RDS (MySQL) and DynamoDB to store user information and authentication tokens, S3 for media, AWS Lambda, Simple Email Service and Simple Notification Service for user activation
- Created IAM roles specific for services and users that followed AWS least privilege Policy
- Coded a Cloud formation template to spin up a new Virtual Private Cloud for the application components such as the EC2 instances, Load balancers, S3, RDS and DynamoDB for the storage, SES, SNS, Lambda and to create / configure security, autoscaling etc
- Used GitHub actions and AWS CodeDeploy for deployment of the application

Social App

- Designed the backend for the entire application by implementing complex logics and features such as user roles, google map functionality, email verification, and booking confirmation
- Developed front-end components for customer and event creation pages

EDUCATION

Masters of Science in Software Engineering Systems | Northeastern University, Boston, MA

Sep 2021 – Dec 2023

Bachelors of Engineering in Mechanical Engineering | Anna University, Chennai, India

Jun 2013 - May 2017