

ARPIT THOOL

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Education

Virginia Tech

PhD in Computer Science

August 2021 – May 2025

Blacksburg, VA

University of Pune

Bachelors of Engineering in Computer Science

August 2016 – May 2020

Pune, India

Experience

Virginia Tech

Software Engineer

August 2021 – Present

Blacksburg, VA

- Researched, designed, implemented, tested and maintained software applications, writing clean code with version control, and appropriate unit and functional tests.
- Built Java software system to effectively communicated with ZAP to conduct thorough scans on web applications, leveraging API calls and proficiently processing JSON data.
- Ran DAST scans using BurpSuite on web apps to generate vulnerability reports.
- Deployed an AWS distributed load testing instance through a configured template and designed intricate JMeter scripts to effectively conduct load testing of the login service using the AWS environment.
- Designed & implemented a Python(Flask) web app with CAS SSO login feature to store and manage files on an on-premise RedHat server. This app is used by internal users over the VPN.

Lutron

Software Engineer Intern

May 2022 – August 2022

Coopersburg, PA

- Collaborated with tech lead, product owner and senior engineers to understand requirements, create UML diagrams and to create the documentation for the system architecture.
- Spearheaded design, development and deployment of a large scale Java Spring application used to migrate from manual management of a Cloud resource to Terraform, slashing manual process time by 50%.
- Wrote CI/CD pipeline script in Groovy to connect the BitBucket repository to the Terraform Provider which in turn performed corresponding changes on Lutron's Artifactory instance.
- Automated a task to decompress and aggregate files fetched from any online Lutron system by implementing the feature in Lutron's Tech Support Tool using C# and .NET.
- Extended functionality of Lutron's System Diagnostics app to enable debug logging for a connected system using TypeScript and React.

Acquia

Associate Software Engineer (Full Stack)

September 2020 – June 2021

Pune, India

- As a part of the Marketing Cloud team, I worked on the Campaign Factory and Campaign Studio products.
- Collaborated with the product owner and senior engineers to participate in code reviews and discuss innovative solutions to add new functionality and increase system efficiency.
- Modeled and implemented an efficient solution to synchronize the creation, modification and deletion of an asset in the parent template to children templates, saving 2000 clients 90% of their time spent on duplicating templates.
- Worked closely with the QA and the UX teams to ensure the features are built according to the requirements of the customers using VueJS, Bootstrap, HTML and CSS.
- Mentored 3 new college graduates joining Acquia. Conducting weekly progress meetings and provided guidance on revising and focusing on key concepts and technologies for a seamless transition to their respective projects.

Technogong

Software Engineer Intern

September 2019 – May 2020

Pune, India

- Designed and developed 'Bizhawk', an mobile application for managing day-to-day activities in a restaurant.
- Saved on 50% estimated costs by delivering the project ahead of time with near zero-defect delivery.
- Created Wireframes to emulate user activities. Implemented app activities in high-quality Java code, wrote PHP scripts to run on a LAMP server to implement product functionalities.
- Created database queries to be used by the backend to communicate with the MySQL database.

Projects

Blogger [Live Project Link](#) [Github link](#) | *TypeScript, AdonisJS, PostgreSQL, AWS*

Nov 2023

- Developed a Blogger web app using TypeScript, AdonisJS, Edge templates & PostgreSQL. Employed the MVC software pattern to design the app.
- A guest is able to read existing blogs and sign up for an account. A logged in user can create new blogs, delete their own blogs and also like/dislike the blogs of their choice.
- Created migrations, schema Models and connected them with relationships for efficient data processing.
- Deployed the app on an AWS EC2 Ubuntu Instance with Elastic IP for efficient and scalable performance.

Task-Manager [Live Project Link](#) | *Python, FastAPI, React, MongoDB, AWS*

April 2023

- Developed a Task Manager web app using FARM stack: Python, FastAPI, JavaScript, React and MongoDB.
- Built a RESTful API backend and a user-friendly frontend with seamless communication through Axios.
- Utilized MongoDB as the NoSQL database, connected to the backend using the motor driver.
- Deployed the app on an AWS EC2 Ubuntu Instance with nginx server for efficient and scalable performance.

Travel Diary & Planner [Github link](#) | *Java, MySQL, Apache, AWS*

October 2021

- Hosted a web application on an AWS instance using Apache server for currency conversion, for checking hotel availability, COVID-19 statistics, and the weather at different locations with the help of Rest APIs.
- An authenticated user is able to store and view various types of files just like an online diary.
- Used Java Jakarta EE web framework and implemented the database using MySQL.

GoLLM (ChatGPT Clone) [Github Demo Link](#) | *Go, Ollama, AWS*

October 2023

- Used Ollama to deploy a llama-2 model on a AWS EC2 instance.
- Built a web app to interact with the LLM model using Go and Bootstrap for UI.

Technical Skills

Programming Languages: Java, Python, Go, C#, C++, Javascript, TypeScript, PHP

Database Technologies: MySQL, Redis, NoSQL, MongoDB

Frameworks: Spring, Spring Boot, Flask, FastAPI, Django, React.js, JavaServer Faces, Angular, Vue.js, Node.js

Other Technologies: Terraform, AWS, GCP, Docker, Kubernetes K8, REST APIs, Git, GitHub, GitLab, HTTP, JSON, XML, Linux, Ubuntu, shell script, Jenkins, HTML5, Groovy, DAST

Industry Skills: Software Development, Backend, Test Driven Development, SOLID Principles, Agile Development, Object Oriented Programming, CICD, Data Structures and Algorithms, Microservices