in linkedin.com/in/varshacl | Experienced Software Engineer

EDUCATION

University of Illinois Urbana-Champaign

Urbana, United States

Master of Computer Science; GPA: 4

January 2024 - May 2025

Activities: Graduate Research Assistant at NCSA, Course Assistant for Software Design Lab

R.V College of Engineering

Bengaluru, India

Bachelor of Engineering - Computer Science; GPA: 9.24

August 2016 – August 2020

TECHNICAL SKILLS

Languages Javascript, Java, Typescipt, Python, C#, SQL, Groovy

Technologies Spring Boot, Express, React, NextJS, NestJS, Angular, .Net, AWS, Azure, Kubernetes, Docker

ORM Sequelize, TypeORM, Hibernate ORM, Entity Framework

Certifications Microsoft Certified: Azure Fundamentals, Certified Kubernetes Application Developer

EXPERIENCE

Egencia, American Express Global Business Travel

Chicago, United States

Software Engineer Intern

May 2024 - August 2024

- Designed end-to-end Python data validation framework at Egencia using **Snowflake**, **Pandas** & Datadog, improving data quality by 40% and enforcing accuracy, completeness, & timeliness across data pipelines.
- Developed automated alerting mechanisms with **Datadog**, reducing issue resolution time by 60% and enhancing operational efficiency by 30% through real-time notifications for data quality issues.

McKinsey & Company

Bengaluru, India

Software Engineer II

November 2022 - January 2024

• Senior Backend developer for a US Energy client

- Led the development of **Python Engine** using **Pandas** to digitize the energy forecasting process & integrated the engine with Azure Queue Storage to facilitate the communication with frontend
- Deployed engine using Azure App Service & dynamically scaled out instances based on the request load

• Senior Backend developer for a US Pharma client

- Engineered **Express microservices** to efficiently process & visualize 10,000+ rows of healthcare data, aiding in selecting the appropriate medications
- Integrated backend microservices with **AWS S3**, facilitating seamless access to data engineering pipeline output, improving data accessibility, & enhancing overall system efficiency
- Implemented the integration of backend microservices with the client's **Active Directory** system to enable seamless **authentication** & **authorization** processes
- Led **code-pairing interviews** for both 2023 interns & lateral hire positions, assessing over 25+ candidates.
- Managed & directed a team of 8 interns in the development of an intranet portal by defining the project scope, conducting daily standup meetings, & ensuring strict adherence to standard coding practices

McKinsey & Company

Bengaluru, India

Software Engineer I

November 2021 - October 2022

• Backend developer for a Pool Application at US water based client

- Built 6 secure, scalable microservices in **.Net**, empowering 100+ pool owners with real-time maintenance tracking, live expert video calls via a mobile & web app.
- Integrated backend systems seamlessly with a range of 3rd-party platforms, including SightCall,
 SendGrid, Twilio, & Azure Services like Storage Account, Redis, & Azure Service Bus
- Designed an **Azure pipeline** for deploying the shared library to a private NuGet feed

• Led sessions for over 10+ interns at Tech University 2022, focusing on holistic backend development, including database management, Sequelize ORM, & unit testing

McKinsey & Company

Bengaluru, India July 2020 - October 2021

Junior Software Engineer

• Backend Developer for a Food Delivery Application at a US Healthcare Client

- Developed a suite of 11 microservices using Spring Boot & Groovy to manage & track orders for chronically ill customers on a subscription basis
- Created multiple batch jobs using Spring Batch to send asynchronous notifications via Email using
 Amazon Simple Email Service & SMS using Twilio to over 1000 users about the order status
- Fullstack Developer for a VIP Ecommerce Solution at a US Ecommerce Client
 - Built a responsive ecommerce website using **NextJS** & **Tailwind CSS** & a highly secure, extensible backend using **NestJS** & **GraphQL**
 - Implemented a **GCP cloud function** that efficiently decoupled the asynchronous loading of over 1000's products from the client's enterprise system to **Strapi CMS**, streamlining data management & reducing data transfer times significantly
 - Researched & applied ADA compliance guidelines using tools like WAVE, axe Accessibility Testing, a color contrast analyzer, etc., resulting in a 15% increase in application accessibility
- Frontend Developer for an internal banking asset
 - Developed a web application using **React**, which facilitates technical & governance teams to maintain a tracker of datalakes associated with banks
 - Enhanced **code quality** by resolving **SonarQube** issues & actively contributing to PR reviews

McKinsey & Company

Bengaluru, India

Software Intern

January 2020 - June 2020

- Frontend Developer for an energy forecasting application at US energy client
 - Developed a web application using **Angular** to run energy forecasts & visualize data through charts, significantly reducing forecasting time from several months to just 10 minutes
 - Implemented end-to-end automation test cases for energy forecasts utilizing the **Protractor** framework, ensuring robust testing coverage & saved significant time in testing
- Developed an intuitive platform for modeling cloud architecture with terraforms, & streamlining the deployment to AWS, & Azure resulting in a 40% reduction in deployment time & improved scalability

Air Asia Tech
Software Intern

Bengaluru, India
June 2019 - July 2019

• Developed a map-based interactive flight search feature using **JavaScript** & seamlessly integrated it with **Google Maps**, enhancing user experience & enabling them to visualize AirAsia's connectivity

ACADEMIC PROJECTS

- DocBot: Personal biomedical assistant: Engineered a domain-specific biomedical chatbot by fine-tuning the SciBERT NLP model on the BioASQ dataset, enabling efficient retrieval & generation of contextually accurate answers to complex biomedical queries
- Time Series Forecasting of Store Sales: Developed a comprehensive time series forecasting system leveraging statistical methods (ARIMA, SARIMAX) & machine learning models (XGBoost, LightGBM) to optimize inventory management & improve sales predictions
- Kafka ML Balancer: Developed an intelligent load balancing system for Apache Kafka clusters, leveraging ML models to dynamically allocate partitions to brokers based on real-time workload patterns & metrics
- Image Caption Generator: Automatically describes the content of an image using InceptionV4 & LSTM of an image using InceptionV4 & LSTM