

TARANJEET SINGH DHINGRA

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EDUCATION

George Mason University, Virginia, USA

December 2023

Masters of Science | Major: Software Engineering | Overall: 4.0/4.0

Netaji Subhas Institute of Technology, New Delhi, India

May 2018

Bachelor of Engineering | Major: Manufacturing Processes and Automation | Overall: 8.0/10.0

WORK EXPERIENCE

Software Engineer – American Chemical Society

February 2024 - Present

- Contributed as a Full Stack Software/DevOps Engineer to the latest ACS Product, Chemistry Databank, utilizing technologies such as AWS ECS, ECR, CodeDeploy, RDS, S3, GitHub Actions, Next.js, React.js, MySQL, Laravel, etc.
- Led cross-functional collaboration with DevOps and product teams to define CI/CD strategy, standardize deployment pipelines, and streamline multi-environment releases, improving developer efficiency and deployment reliability
- Architected a low-cost, headless, serverless Playwright QA automation using AWS Lambda, SNS, ECR, EventBridge, S3, and Docker, enabling in-house scheduling of e-alerts and HTML QA reports with customizable timing and frequency
- Mentored the QA team in adopting modern automation practices for Playwright reducing regression cycle time
- Designed and implemented an internal Graphical User Interface to manage data for 1110+ Collections/Special Issues, empowering teams with self-service workflows and reducing manual overhead and release time by 90%.
- Proposed, and implemented an in-house README text editor/generator reducing user drop-off by 100%
- Collaborated across engineering, design, and product teams in a SAFe Agile environment, contributing to code reviews for maintainability and quality, and supporting sprint planning, backlog refinement, and feature ideation

Web Design Intern, Software Engineer Co-op – American Chemical Society

May 2023 - December 2023

- Utilized JavaScript frameworks/libraries, including Node.js and jQuery to create dynamic single-page web applications
- Streamlined backend processes and generated JSON files from raw marketing data, increasing efficiency and data integration
- Designed interactive JavaScript modals to run ad campaigns on journal homepages, engaging users and driving conversions
- Developed and designed compelling, responsive webpages, enhancing existing UI and improving overall user experience
- Improved functionality and usability by adding new features such as dynamic pagination, searching sorting to existing webpages
- Implemented optimization strategies to enhance front-end performance, resulting in improved browser API utilization

Graduate Teaching Assistant, Grader – George Mason University

August 2022 - December 2023

- Mentor over 130 students for “Software Design and Architecture” graduate-level course, including Agile manifesto, Scrum, Software Development Life Cycle, Requirements Engineering, 4+1 View Model, UML Diagrams, Evaluating Architectures, etc.
- Collaborate with faculty on various tasks including, online instructions, grading, giving consistent feedback to students

CERTIFICATIONS

AWS Solutions Architect Associate

May 2025 - May 2028

AWS Certified Cloud Practitioner

May 2025 - May 2028

Harvard University CS50

July 2021 - October 2021

Project Development Using JAVA

October 2021 - November 2021

TECHNICAL SKILLS

- Programming Languages:** Typescript, Java, JavaScript, SQL, C, Python
- Technologies:** Next.js, React.js, Node.js, Express.js, Playwright, jQuery, REST API, Ajax, Docker, Kubernetes (EKS/GKE), Jenkins, GitHub Actions, AWS CloudFormation, Terraform, AWS Cloud
- Database Management Platform:** MySQL, Oracle Database, MongoDB
- UI Framework:** Material UI, Shadcn UI, Bootstrap 5, W3CSS, Figma, Balsamiq
- Tools/Platforms:** JIRA, Confluence, ServiceNow, GitHub, Git, VS Code, Eclipse, IntelliJ

ACADEMIC PROJECTS AND PUBLICATIONS

MERN Full Stack Application

December 2022 - January 2023

- Developed and deployed a full stack MERN application that allows users to Create, Read, Update, and Delete goals.
- Used node.js and express.js to build REST API, added authentication using JSON web token (JWT) to access protected routes
- Managed Database on the cloud using MongoDB Atlas and mongoose. Used React, Redux Toolkit for frontend

Employee Management

December 2022 - January 2023

- Developed and deployed a Full Stack employee management application using React, Spring Boot and MySQL Database
- Created CRUD REST APIs using Spring Boot, used Axios HTTP Library to make REST API calls in React along with Bootstrap 5
- Deployed Spring Boot Backend on AWS Elastic Beanstalk, MySQL Database on AWS RDS and React.js Frontend on AWS S3

Campus Review

November 2022 - December 2022

- Collaborated with a 3-member team to deploy a containerized web application (Angular, Spring Boot, and AWS RDS) on 2 clusters using Google Kubernetes Engine. Configured a CI/CD pipeline on Jenkins with GitHub webhook
- The pipeline builds the image, pushes the new image on Docker Hub, and deploys the new version on the 2 Kubernetes clusters