

Pratyush Paliwal

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EDUCATION

Technische Universität Darmstadt

M.Sc. in Computer Science, Specialization in Data Science Engineering

Darmstadt, Germany

Oct. 2024 – present

IIIT Bhubaneswar

Bachelor of Technology in Information Technology

Bhubaneswar, India

Aug. 2017 – May 2021

EXPERIENCE

Software Engineer - 2

Feb. 2023 – Sep. 2024

Dell Technologies

- Led Front-End development using React-Redux for a web app enabling users to build Docker images via a user-friendly interface
- Developed a script wrapper to integrate automated browser testing (Moon, SeleniumBox) for multiple languages and frameworks into CI/CD pipelines
- Built Python wrapper to integrate Snyk security testing into CI/CD pipelines across Dell development teams

Software Engineer - 1

Aug. 2017 – Jan. 2023

Dell Technologies

- Led release cycles for secure, vulnerability-free Docker Images used in CI/CD pipelines by global Dell teams
- Automated the build, scan, test, and release of DevOps Container Images, reducing release cycle time by 50% and manpower requirements by 66%
- Built automation tools (Python, Groovy, JavaScript, Shell) and supported application teams in adopting DevOps practices, resolving deployment issues, and transitioning to new SDLC tools across Dell Digital
- Evaluated and tested third-party security tools aiming to select and onboard the best-fit application security solution for Dell Digital

PROJECTS

Container Image Builder | *React-Redux, Podman, Docker, Flask, CI/CD*

Mar. 2024 – Sept. 2024

- Worked on a no-code/low-code web application cutting down Docker Desktop Enterprise licensing costs by 80% by enabling Dev teams to build container images through a web-based App leveraging Podman
- Implemented a parallel container image build pipeline for multiple tech stack versions, reducing build time by 60%
- Allowed for Enhanced security and lightweight microservices architecture using non-root, daemonless containers across application teams

Pipeline Error Resolution - RAG Model | *Machine Learning, ELK stack, serverhooks*

May 2023 - Feb. 2024

- Built a Retrieval Augmented NLP model trained on a large dataset of Error-Resolution pair used for self-sustaining deployment pipeline, targeting 70% of pipeline failures for automation
- Implemented serverhooks for identifying pipeline failures by parsing the job log errors
- Updated Database for novel error encounters making it flexible and scalable

PUBLICATIONS/RECOGNITIONS/TRAININGS

- **Patent:** Titled “Automated Error Resolution in a Software Deployment Pipeline”, Patent Number US-20240345904-A1, United States Patent and Trademark Office, 17/10/2024
- **Training:** DevOps Certification Training, Simplilearn, credential ID 4140669, Feb. 2023
- **Course:** Algorithmic and Theoretical Aspects of Machine Learning, Co-sponsored by Microsoft and Mphasis, ACM Summer School, IIIT Bangalore, June 2019
- **Recognitions:** Game Changer award, Dell Technologies, for leading a release that resulted in a substantial reduction in the overall Vulnerabilities count in Container Images

TECHNICAL SKILLS

Languages: Python, JavaScript, C/C++, ShellScript, HTML/CSS, Groovy

Frameworks: React, Node.js, Flask, Django, WordPress, Material-UI, RestAPI

Developer/Professional Tools: Docker, Kubernetes, Git, Pivotal Cloud/Container Service (PCF/PKS), Gitlab CI/CD, Jenkins, Ansible, Snyk, Postman, HashiCorp, JFrog Artifactory, ServiceNow, Microsoft PowerApps