

# DARSHAN PATEL

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## PROFESSIONAL SUMMARY

Skilled **Full-Stack Developer** with **4+ years** of experience in system design, cloud computing, and scalable solutions. Proficient in **JavaScript, TypeScript, Java, Python**, and frameworks like **React, Node.js, and Next.js**. Certified **AWS Cloud Practitioner** with strong problem-solving and collaboration skills. Experienced in managing **AWS Architecture** and guiding teams on technical decisions. Passionate about leveraging **generative AI and LLMs** to solve complex problems.

## EDUCATION

**Memorial University of Newfoundland**  
*Master of Applied Science in Computer Engineering*

**Sep. 2023 – April 2025**  
*St. John's, Newfoundland and Labrador, Canada*

**Nirma University**  
*Bachelor of Technology in Information Technology*

**July 2016 – May 2020**  
*Ahmedabad, Gujarat, India*

## TECHNICAL SKILLS

**Primary Skills:** Full-Stack Development, System Design, Microservices, Cloud Computing, Serverless Architectures, Distributed Systems, API Development, DevOps, Automation, AWS Architecture, Generative AI, LLMs

**Languages & Frameworks:** JavaScript, TypeScript, Python, Java, React, Next.js, Node.js, Express, FastAPI, Spring Boot, HTML, CSS, SQL, Bash

**Tools & Databases:** AWS Services (S3, Lambda, API Gateway, Cognito), Docker, Kubernetes, Terraform, Jenkins, CircleCI, MongoDB, MySQL, PostgreSQL, Redis, Elasticsearch, GitHub Actions, Ansible, JIRA

**Testing & Build Tools:** Jest, Webpack, ESLint, Babel, Cypress, Prettier

## EXPERIENCE

**Western University**  
*Research Assistant - Contract Part Time*

**June 2025 – Present**  
*Remote*

- Developed machine learning pipelines and analytics tools for a clinical hand joint assessment platform, improving diagnostic precision and automation.
- Engineered performance validation workflows to enhance reliability and accuracy of patient assessments across varied datasets.
- Applied AI-driven solutions to real-world healthcare challenges, driving innovation in clinical decision-making through data-centric approaches.

**Focus FS**  
*Full-Stack Developer*

**April 2025 – Present**  
*St. John's, Newfoundland*

- Building AI-powered tools and safety analytics dashboards as part of the Innovation Team, using Angular, React, Python, and FastAPI to enhance industrial emergency response workflows.
- Designed and integrated modular frontend interfaces with real-time backend services, streamlining incident management and reporting for field operators.
- Collaborated cross-functionally to modernize legacy systems into scalable, maintainable microservices deployed on Azure, improving platform responsiveness and developer velocity.

**PlayPower Labs**  
*Full-Stack Developer*

**May 2020 – August 2023**  
*Gandhinagar, Gujarat*

- Built a Super Admin portal using React.js, TypeScript, **Redux Toolkit**, and Auth.js-based RBAC with a custom auth microservice on AWS (Terraform) to manage **50+** organizations and **2,500+** users.
- Developed scalable FastAPI and OpenCV, OCR-based ML pipelines on Docker, deployed via AWS Lambda, ECR, SQS, and Redis, processing **13M PDFs** in 3 days with **30K** concurrent scans for the Rajasthan Government.
- Digitized textbooks into interactive PDFs with in-house AI tools, increasing usage by **80%**, and automated real-time performance reports for **10K+** parents using FastAPI and WhatsApp Business API.
- Led architectural design, implemented modular microservices, and mentored juniors to ensure performant, maintainable codebase.

- Developed a scalable CMS using React, TypeScript, S3, Lambda, API Gateway, and DynamoDB, improving authoring efficiency by **40%**, cutting load times by **50%**, and reducing costs by **30%** with a serverless setup.
- Built custom cross-platform UI components with Material UI, delivering 4 responsive apps with a consistent, accessible UX.
- Engineered microservices in TypeScript using AWS Lambda, SQS, ECR, and S3, automating grading and data analysis workflows to boost CMS performance.

## PROJECTS

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**Surgical Gesture Assistant** | *Swift, AWS S3, Auth0, MongoDB, FastAPI, Python* **November 2024**

- Developed an iOS app with MediaPipe and custom ML models for real-time gesture detection, secure Auth0 authentication, and AWS S3 video uploads.
- Built a scalable backend using FastAPI, Nginx, MongoDB, and Redis with Celery for asynchronous video processing, ensuring reliability with detailed logging and real-time push notifications.

**URL Shortener - LinkSnip** | *Next.js, PostgreSQL, Vercel ( [Try It](#) )* **March 2025**

- Built a scalable URL shortening service with PostgreSQL using LinkSnip, featuring link expiration, analytics, and custom aliases.

## CERTIFICATES & PUBLICATIONS

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**AWS Certified Cloud Practitioner (Issued: December 2024)**

[View Certificate](#)

**Equitable Access to Intelligent Tutoring Systems Through Paper-Digital Integration**

[Paper Link](#)

*Published in International Conference on Intelligent Tutoring Systems, June 2022.*

## REFERENCES

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