

# JEMIL DHARIA

SOFTWARE DEVELOPER

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## EDUCATION

### Arizona State University

Master of Science (MS) in Computer Science

GPA: 3.89/4.0

Tempe, Arizona  
August 2024 – May 2026

### Pandit Deendayal Energy University (PDEU)

Bachelor of Technology (B.Tech) in Computer Engineering

CGPA: 9.91/10.00

Gandhinagar, India  
August 2020 – May 2024

## WORK EXPERIENCE

### Teaching Aide - Physics Lab | Arizona State University

Tempe, Arizona

August 2024 – Present

- Manage **laboratory operations**, including equipment setup, safety compliance, and troubleshooting technical issues.
- Provide individualized **assistance** to a class of 72 students, enhancing student lab performance scores by 20%.
- Analyzed over **500** lab reports each semester and provided **targeted feedback** to students, resulting in a noticeable enhancement.

### Website Development Intern | Aasma Technology Solutions

Ahmedabad, India

January 2024 – June 2024

- Designed and devised the company's website using **React.js** for the frontend and **Node.js** for the backend containing 10+ pages, while managing the database through **Contentful**, guaranteeing reduced page load times by 35%.
- Implemented a direct Contentful API integration, bypassing the backend server further reducing **response time** by 30%.
- Adhered to the **Agile** Software Development Life Cycle with weekly sprints, achieving a 100% sprint completion rate.

### Software Development Intern | Cappgemini Technologies

Gandhinagar, India

June 2023 – July 2023

- Constructed a comprehensive **Python** library utilizing the **Flask** framework for seamless implementation of 20+ **ABHA APIs** developed by the government of India, aimed at centralizing the authentication of **Medical Health Records**.
- Built a wrapper class in the form of a reusable module to seamlessly link the **M1** (Registration) and **M2** (Verification) ABHA APIs, achieving a 25% improvement in API response efficiency and securing compliance with healthcare data protocols.
- Led a team of 5 to unify **Node.js** and **Python** server functions, enhancing cross-platform compatibility and system performance.

### Backend Development Intern | Gainserv Technologies

Surat, India

May 2022 – July 2022

- Developed a robust **MVC framework** that optimized application structure, enhancing code efficiency and reducing development time.
- Rendered dynamic pages through **Ejs** templates and integrated content with **MongoDB** database through mongoose **ODM**.
- Added user authentication through **sessions** and **cookies** and incorporated payment gateway through **StripeJS** to proceed to invoice.

## SKILLS AND EXPERTISE

**Technical:** Python, C++, NodeJS, ReactJS, RESTful APIs, CI/CD pipelines, Cloud deployment (AWS, Azure), HTML, CSS, JavaScript, Express.js, Flask, Git, GitHub, Android Studio, NetBeans, Google Colab, Pandas, NumPy, Matplotlib, Figma, Docker, MongoDB Atlas, PostgreSQL, MySQL, VMWare Workstation, Microsoft Office, Autopsy, FTK imager, Jira, Agile | **Scripting:** LaTeX

**Organizational:** Leadership, Team Player, Public Speaking, Work Ethics, Multitasking Abilities, Communication Skills, Problem-Solving, Adaptability, Analytical Thinking, Data Analysis, Time Management | **Languages Known:** English, Hindi, Gujarati

## PROJECTS

### Classification and Segmentation of PV Satellite Images

(PDEU, India)

February 2024 – May 2024

- Devised a deep learning pipeline on PV dataset using **U-Net** for pixel-level segmentation and **ResNet18** for binary classification, achieving a **Dice score** of **0.82** and **92% accuracy** across satellite imagery datasets.
- Implemented scaled masking and **thresholding** techniques to distinguish solar panel and non-solar panel images, enabling precise area estimation and energy capacity analysis, and proposed advance architectures, including SeResNet and YOLOv8, to improve segmentation fidelity and classification robustness for large-scale **renewable energy** applications.

### Non-Contact Inspection of Electrically Discharged Materials ([Link](#))

(PDEU, India)

September 2023 – November 2023

- Proposed a non-contact inspection method to predict surface roughness of **electrically discharged material** (EDM) surfaces achieving a 30% improvement in prediction reliability with K-nearest neighbors regression (MSE: 0.00157, R<sup>2</sup>: 0.99) using an **augmented** dataset.

### GUI - CPU Scheduling Algorithm Simulator ([Link](#))

(PDEU, India)

March 2023 – May 2023

- Built web-based **CPU Scheduling Algorithm Simulator** for visualizing and customizing process of CPU scheduling, achieving 95% user satisfaction in testing, completed with **Gantt Chart** visualization and computation of key performance metrics.

## ACHIEVEMENTS AND PUBLICATIONS

- Presented at **8th International Conference** on Computing Sciences (ICCS-2023).
- Served as **App Development** Core Committee Member of **Encode** – The Coding Club of PDEU.
- Published **research** on machine learning inspection methods ([Springer](#)).