JEMIL DHARIA

SOFTWARE DEVELOPER

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EDUCATION

Arizona State University — **Tempe, Arizona**
Master of Science (MS) in Computer Science (NAmU Scholarship) — **GPA: 3.89/4.0** — **August 2024 – May 2026**

Pandit Deendayal Energy University (PDEU) — **Gandhinagar, India**
Bachelor of Technology (B.Tech) in Computer Engineering — **CGPA: 9.91/10.00** — **August 2020 – May 2024**

WORK EXPERIENCE

Teaching Aide - Physics Lab | Arizona State University — **Tempe, Arizona** — **August 2024 – Current**

- Manage **laboratory operations**, including equipment setup, safety compliance, and troubleshooting technical issues.
- Provide individualized **assistance** to students, enhancing their understanding of fundamental physics concepts and lab techniques.
- Evaluate lab reports and offer constructive **feedback** to improve experimental skills and analytical thinking.

Website Development Intern | Aasma Technology Solutions — **Ahmedabad, India** — **January 2024 – June 2024**

- Designed and devised the company's website from the ground up using **React.js** for the frontend and **Node.js** for the backend, while managing the database through **Contentful**, ensuring effective and scalable content management.
- Deployed development version on **Vercel** and **GitHub**, the production version was hosted on the company's proprietary servers.
- Adhered to the **Agile** Software Development Life Cycle with weekly sprints and corresponding backlogs.

Software Development Intern | Capgemini Technologies — **Gandhinagar, India** — **June 2023 – July 2023**

- Constructed a comprehensive **Python** library utilizing the **Flask** framework for the seamless implementation of the **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 integrate the **M1** (Registration) and **M2** (Verification) ABHA APIs, which handle the secure of ABHA IDs on the user's behalf, ensuring compliance with healthcare data protocols.
- Collaborated with the team to integrate user functions for **Node.js** and **Python** servers, ensuring functionality through frontend testing.

Backend Development Intern | Gainserv Technologies — **Surat, India** — **May 2022 – July 2022**

- Started development with the Model, View, Controller **(MVC)** model and applied dynamic routing through headers and queries.
- 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, HTML, CSS, JS, NodeJS, Express.js, Flask, ReactJS, RESTful APIs, Git, Github, VS Code, Android Studio, NetBeans, Google Colaboratory, Jupyter Notebook, Pandas, NumPy, Matplotlib, Figma, Docker, MongoDB Atlas, PostgreSQL, MySQL Workbench, VMWare Workstation, Microsoft Office, Autopsy, FTK imager, Jira, MS Office, Agile | **Scripting:** LaTeX

Organizational: Public Speaking, Work Ethics, Multitasking Abilities, Communication Skills, Team Player, Leadership, 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 framework 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 based on non-contact measurements utilizing self-made augmented dataset.

GUI - CPU Scheduling Algorithm Simulator (Link) — **(PDEU, India)** — **March 2023 – May 2023**

- Built web-based **CPU Scheduling Algorithm Simulator** with user-friendly GUI for visualizing and customizing process of CPU scheduling, completed with **Gantt Chart** visualization and computation of key performance metrics.

ACADEMIC AND EXTRACURRICULAR ACHIEVEMENTS

- Paper Presentation, **8th International Conference** on Computing Sciences (ICCS-2023).
- Served as **App Development** Core Committee Member of **Encode** – The Coding Club of PDEU.

PUBLICATIONS

Non-Contact Inspection of Electrically Discharged Materials using Machine Learning | Springer