

TIRTH BHIMANI

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EDUCATION

Course	Institute	Year of Passing	Result
Bachelor of Technology (CSE)	IIT Jammu	2023	8.56 CGPA
12th Standard	Modi School	2019	86.30%
10th Standard	Dholakiya School	2017	92.5%

WORK EXPERIENCE

Nvidia

System Software Engineer (Sept 2023 - Present)

- Enhancing device driver for NVIDIA GeForce GPUs, with a focus on thermal issues and fan control algorithms using C/C++.
- Collaborating with diagnostics software, hardware characterization, and platform/board teams throughout the entire life cycle of the SKU, including design, coding, bringup, testing, and maintenance.
- Optimizing and solving problems in the GPU driver to ensure efficient and effective performance.

Skills Acquired - Kernel Debugging, Device Driver Programming. C/C++

Nvidia

Software Engineering Intern (Jan 2023 - Jul 2023)

- Implemented Priority and Fairness feature in Kubernetes cluster for improved flow of requests
- Deployed IPMI exporter and Prometheus for hardware metrics monitoring with Grafana dashboard to visualize metrics
- Configured heap space and thread dump collection for improved remote debugging in Jenkins Pods
- Verified persistent volumes functionality on upgraded Trident version in ARM nodes

Skills Acquired - Kubernetes, Prometheus, Grafana, Jenkins, Trident, Ansible Playbook, Linux

Culinda Inc.

Python Developer Intern (Apr 2022 - Jul 2022)

- Developed the security system for FastAPIs by adding an Authentication token system with Database Management.
- Constructed Azure Functions for Registrant Alert, BrandAlert, Reverse Whois, and Page Parsing.
- Enhanced the accuracy of Resume parser in Data Extraction and Designed UI for the same application.

Skills Acquired- Attack Surface Management, FastAPI, Azure Function, API management with Python

Infilytics Pvt. Ltd. ✓

Machine Learning Intern (Jun 2021 - Jul 2021)

- Streamlined 20% of the workflow of CAs by accurately providing the inconsistent entries in sales data.
- Implemented time series forecasting on previous sales data to set the benchmark for future sales of the company.
- Programmed the model in Python using ARIMA and RNNs to obtain the best accuracy for different datasets.

Skills Acquired- Neural Networks, CNNs, RNNs, ARIMA & TensorFlow

PROJECTS

360° Omnidirectional Super Resolution for Images

CVPR 2023 (Feb 2023 - Mar 2023)

- Applied [Liif Architecture](#) and performed several tweaks to get the best WS-PSNR of 26.1527.
- Generated more Downsampled images for given High-Resolution Images for dataset generalization.

Applied Techniques - Image Downsampling Techniques, Super Resolution techniques

Order Management System ↗

IIT Jammu (Mar 2022)

- Developed a database with MySQL to store, manipulate and search a product & their orders for customers and suppliers.
- Designed an ER model with 7 entities and translated the model into a relational schema for management system.

Applied Techniques - Joins, Views, Regular Expression, Conditional Statements etc.

Image Recognition ↗

(Aug 2021)

- Developed several models for food recognition in images and tweaked properties of Neural networks to improve efficiency
- Surpassed the accuracy of [original dataset](#) by ~37% margin (original data accuracy - 50.76, developed model accuracy - 87)

Applied Techniques - CNN, Data Augmentation, Data Preprocessing, Overfitting Reduction

SKILLS

Programming Languages	C, C++, Python
Technical Skills	Kernel Programming, Kernel Debugging, Deep Learning, Machine Learning, Data Structure & Algorithms (DSA), Object Oriented Programming, Data Science
DataBase Management	MySQL, MongoDB
DevOps	Kubernetes, Jenkins, Prometheus, PromQL, Grafana, Ansible Playbook

ADDITIONAL DETAILS

Event Participation

- Secured 2nd price in **PDC Valorant Cup 2023**
- Won Gold medal for CSE branch in **IntraIIT 8-ball pool championship 2023**
- Represented IIT Jammu in **Inter IIT Tech Meet 10.0** for Bosch Model Extraction (Based On Deep Learning, Cyber Security)
- Secured 6th state rank in **Pitch Deck Competition 2022** for StartUp ideas

Professional Development

- **CodeBlocks** - Algo++ Course completion certificate
- **Microsoft Verzeo** - Machine Learning Course completion certificate