Mrinmay Dhar

#OpenToWork

ADDRESS

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29 September 1998
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Mrinmay Dhar

WORK EXPERIENCE

Shaadi Brigade (May 2019 - June 2019)
Student Intern

- Used **WordPress** as CMS, enabling easier **code maintenance**.
- Created custom **HTML and CSS**.
- Used Apache, MySQL, and PHP included in **LAMP stack** for local testing.
- Direct customers to landing page and boost **SEO** rankings.
- Schedule **backup** files from websites to local directories on a **hosting** platform.

REFERENCES

Saanvri Kapoor
Co-Founder
(+91) 762-204-2778
saanvri@shaadibrigade.com

During the internship he demonstrated good design skills with a self-motivated attitude to learn new things. His performance exceeded expectations, and we wish him all the best for his future endeavors.

EDUCATION

Amity University, Noida (July 2016 - August 2020)
Bachelor of Technology
Computer Science and Engineering
7.78

First Division in a batch of 714 students

Bluebells School International, New Delhi (May 2013 - May 2016)
CBSE

10th Standard: *8.6 CGPA*
12th Standard: *86.2%*
Certificate of Merit

CERTIFICATIONS

Duolingo English Test May 2021
Duolingo

C1 CEFR Equivalent
135 points

SKILLS

- Python
- Git/GitHub (VCS)
- Jenkins (CI/CD)
- Ansible Automation
- Linux
- Docker/Kubernetes
- MS Office
- System Administration

LANGUAGES

English
Expert

Hindi
Native

Bengali
Native

French
Novice

HOBBIES

Assembling PCs

RPi4 Tinkering

PROJECTS

Game Development using C++
https://github.com/mrinmaydhar/Pako-CPP

- Created a game in Turbo C++ using the **Borland Graphics Interface** (BGI) emulated in **DOSBox**.
- Setup **level design** and enhanced **VM level optimization** in DOS.
- Used **memory management features** to improve **frametimes**, reduce jitter and lag.

MNIST Dataset Training and Evaluation
https://github.com/mrinmaydhar/MNIST-demo

- **Trained** and evaluated the **MNIST dataset** of (60k+10k) **handwritten digits** on a convolutional neural network (**CNN**) with an accuracy of **99.45%** in under **95 seconds**.
- Used a **sequential model** with 8 layers, and trained them for 15 epochs. Used **tensorboard** to gather generated scalar data.
- Setup and handled a **bare-metal Linux hypervisor** with **Docker** functionality to implement the python code.

Hawkeye
https://gitlab.com/oversight/hawkeye

- Created a **filesystem** on the **seL4 microkernel** with logical block device access only.
- **Benchmarked IOPS** across various file types, over different storage media. Determined **block level encryption** over filesystem level encryption.

NGC Deployment via Remote Devices

- Used NGC to implement a **Docker container** for ML/DL training.
- Setup a **hypervisor** to isolate VMs and improve system security.
- Used **Kubernetes** for orchestration of containers.
- Setup firewalls, fail2ban, custom firewall rules/ports, and IP jails to protect against **DDoS attacks**.
- Implemented a **WireGuard VPN** to harden SSH connections. These SSH connections used **Host-based authentication** to prevent IP/DNS/routing types of spoofing attacks.
- Used **port forwarding** on the network-control layer to prevent against traffic attacks on common ports.
- Used a **Dynamic DNS hostname provider** to register dynamic ISP provided DNS to a specific hostname.