

ABHA UPADHYAY

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Resume Summary

I am a tech enthusiast with expertise in Cyber Security, AI, and IoT. Passionate about developing innovative solutions, I have experience in designing cryptographic protocol and security systems.

Experience

- ❖ **Junior Research Engineer | Indian Institute of Information Technology, Allahabad | Dec 2021 - Feb 2024**
Worked under Project titled IoT Security-Development of security audit framework for secure IoT Network. - Python, Cyber Security, Kali Linux, Vulnerability Assessment, Penetration Testing, IoT, C++, Cryptography, AI, Docker, MySQL, Metasploit
- ❖ **Junior Research Fellow | Centre for Advanced Studies, Lucknow | Jan 2021 - Nov 2021**
Worked under Project titled Assistive device to impart perceptual ability to visually-impaired using intelligent scene capturing. – Python, Deep Learning, Machine Learning, NLP, LLM, Docker, Kali Linux, Skill Development, Text-to-Speech, AI, MySQL
- ❖ **Research Assistant Intern | Indian Institute of Technology BHU (IIT BHU) | Jan 2020 - June 2020**
Literature reviewed and Developed security system based on AI and IoT for medical images. – Python, Deep Learning, Video, NLP, LLM
- ❖ **Intern | Indian Institute of Technology Kanpur (IITK) | Nov 2019 - Jan 2020**
Perform literature review on detailed study on object recognition techniques. - Python, Machine Learning, Object Recognition

Skills

Vulnerability Assessment, Unix Shell Scripting, Penetration Testing, Cyber Security, Cryptography, Nessus, OWASP, Network Security Protocol, Azure, Threat Modelling, Python, C++, MySQL, NMAP, Metasploit, Burp Suite, Kali Linux, PowerShell, IoT, AI/ML/DL (Knowledge of Java, PHP, HTML, CSS also)

Education

- ❖ **MTech in Department of Computer Science and Engineering, Dr. APJ Abdul Kalam Technical University,Lucknow, July-2020.**
- ❖ **BTech (CSE), Dr. APJ Abdul Kalam Technical University,Lucknow, May- 2017**
- ❖ Class-12 CBSE Board, May-2013
- ❖ Class-10 CBSE Board, May-2011

Projects

- ❖ **MTech final year project – Distortion aversion secured watermarking system using Deep neural network | Aug 2019 – July 2020**
A CNN based watermarking system that can be used to extract inherent features from picture by training the CNN model. And when training to CNN model is done then inherent feature is obtained and permuted with owner's watermark pattern to create master share. And in picture verification part, the picture goes under pre-trained CNN to get its inherent feature back. And also apply DWT to image for watermarking purpose to check the effectiveness of CNN model. And to ensure the robustness of proposed technique, DWT based watermarking method is get also evaluated and make sure that CNN based watermarking technique provide better results in terms of robustness and maintain the integrity.
- ❖ **BTech final year project - Doctor-Patient Portal with secure file transfer | Aug 2015 - May 2017**
Entire project is a combination of two separate projects which are used to support each other. Doctor-Patient Portal-The Doctor Patient Portal being the primary project is an Enterprise Resource Management System made by using PHP and HTML as for its major end. For database management, we've went for MySQL as a means to store the databases. The main concern of making this Portal is to provide an ERP System for hospitals. The second part of the project was a Secure File Transfer System which will be used to send and receive files across internet and/or ethernet systems securely. The purpose of this file. The Secure File Transfer System is embedded into the Doctor Patient Portal to make the storing of client's data and doctor's details confidential, and also in-turn verify the integrity of the data. Also, there will be a Client - side software for the purpose of data encryptions (which will stay at the user's local drive) and shall be used to encrypt and send data across any network.

Research and Publication

- ❖ "The enhanced security system for face recognition based on Deep network" in International Conference of Contemporary Education and Technology Evolution 2020. (ICCETE 2020).
- ❖ "Lightweight Authentication Protocols for IoT Networks", IEEE 2023(Pune).

Achievements

- ❖ Cleared up to semi-final round of **IT Olympiad 2016** organized by **Rotary Club (Pune)**.
- ❖ Worked as Student Coordinator in Computer Society of India.
- ❖ **Gate 2018 qualified.**

Personal Details

Current Location: Pune

Date of Birth: 13-August-1995

Gender: Female

