Gurpreet Singh

Date of birth: 06/05/2000 | **Nationality:** Indian | **Phone number:** (+82) 1021840042 (Mobile) |

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WORK EXPERIENCE

01/07/2024 – CURRENT Daejeon, South Korea

DATA SCIENTIST – TRASH CLASSIFICATION & DATA AUGMENTATION NETVISION TELECOM

1. Developed multiple object detection models by annotating a large dataset of images using CV A T (Computer Vision Annotation Tool) for accurate trash classification. Employed advanced labeling techniques to ensure high-quality annotations for model training.Implemented and fine-tuned YOLOv8 and PASCAL VOC models within the CV A T framework, leveraging bounding box annotation for precise object detection. Integrated model training pipelines with real-time inference to optimize performanceon trash classification tasks.
2. Collected, preprocessed, and augmented training data to enhance the robustness of the trash classification models. Utilized various data augmentation techniques (e.g., rotation, scaling, and flipping) to increase the diversity and size of the training dataset for better generalization.

01/06/2024 – 01/10/2024 Daejeon, South Korea

SOCIAL INNOVATION DEVELOPER DAEJEON UNIVERSITY - WOOSONG UNIVERSITY

1. Developed a community-focused project for the 2024 Youth Social Entrepreneurship Hackathon.
2. Collaborated in a partnership between Woosong University and Daejeon University to drive social impact.
3. Focused on creating sustainable solutions for local social issues through innovative methodologies.
4. Engaged in multidisciplinary collaboration with a diverse team to conduct in-depth analyses of community challenges.
5. Brainstormed and ideated innovative strategies for addressing real-world problems utilizing design thinking principles.
6. Applied academic knowledge in an impact-driven environment, emphasizing practical solutions and social responsibility.
7. Strengthened problem-solving, teamwork, and leadership skills through dynamic interaction and project execution in a collaborative setting.

01/02/2024 – 01/09/2024 Delhi, India

ARTIFICIAL INTELLIGENCE INSTRUCTOR & DATA ANALYTICS EDUCATOR THE EDUCATION DIARY

1. Served as an Artificial Intelligence Instructor at The Education Diary from February 2024 to September 2024, conducting remote classes.
2. Delivered comprehensive instruction to college students eager to expand their knowledge in AI and related fields.
3. Developed and implemented engaging curricula and lesson plans focusing on Artificial Intelligence concepts and applications.
4. Provided instruction in Data Analytics, emphasizing data-driven decision-making and analytical methodologies.
5. Educated students in Cybersecurity, Big Data, and Programming, fostering a well-rounded understanding of technology.
6. Facilitated interactive learning experiences, enhancing student engagement and knowledge retention through practical applications.
7. Collaborated with a team of educators to continuously improve course materials and teaching methodologies.

01/05/2024 – 01/07/2024 Daejeon, South Korea

D-BUDDY GLOBAL SUPPORTER – INTERNATIONAL OUTREACH SPECIALIST DAEJEON SUPPORT CENTER FOR FOREIGN RESIDENTS

1. Served as a D-Buddy Global Supporter at the Daejeon Support Center for Foreign Residents from May 2024 to July 2024, working on-site in South Korea.
2. Promoted Daejeon as an attractive destination through targeted social media campaigns aimed at the Indian audience.

3. Created engaging and informative content highlighting the cultural, educational, and recreational opportunities available in Daejeon.
4. Collaborated with local organizations and stakeholders to enhance community engagement and awareness of Daejeon's offerings.
5. Utilized digital marketing strategies to effectively reach and resonate with potential visitors and residents from India.
6. Actively participated in events and initiatives to foster cross-cultural connections and support for foreign residents in Daejeon.

01/03/2024 – 01/07/2024 Delhi, India

MACHINE LEARNING ENGINEER INTERN – APPLIED MACHINE LEARNING MENTORNESS

1. Engaged in a 6-month internship with Mentorness, focusing on hands-on experience in machine learning (ML) projects and real-world applications.
2. Contributed to diverse ML tasks and responsibilities, enhancing practical skills and knowledge in a dynamic and evolving field.
3. Collaborated with team members to develop and implement applied machine learning solutions, improving efficiency and effectiveness in various projects.
4. Gained insights into machine vision technologies, leveraging them to enhance project outcomes and tackle real-world challenges.
5. Developed proficiency in using machine tools and design principles, contributing to the overall project development process.
6. Participated in ongoing training and workshops to stay updated with the latest trends and advancements in machine learning and AI technologies.

01/03/2024 – 01/07/2024 Daejeon, South Korea

CAPSTONE PROJECT DEVELOPER – COMPUTER VISION SPECIALIST SEAH STEEL

1. Contributed to a capstone project with SeAH Steel, a premier steel manufacturing company in South Korea, focusing on the detection and extraction of ID numbers from defective steel bars, particularly those exhibiting "ears.
2. Developed an advanced computer vision program utilizing object detection and image segmentation techniques to identify "ears" on steel bars captured by CCTV within a critical time frame of 5 seconds per bar.
3. Implemented individual bounding box detection for □180 angle rolled billet bars, successfully identifying and quantifying ear areas and lengths based on detected masks to ensure compliance with accuracy standards.
4. Collaborated with a multidisciplinary team to optimize the program's performance and ensure its seamless integration into SeAH Steel's production environment, addressing operational requirements and constraints.
5. Conducted algorithm analysis to refine detection techniques, enhancing the program's effectiveness in real-time scenarios.
6. Leveraged data processing skills to manage and analyze visual data, contributing to the overall quality control processes in steel manufacturing.

01/10/2021 – 01/02/2022 Daejeon, South Korea

RESIDENT ASSISTANT – STUDENT SUPPORT SPECIALIST SOLBRIDGE

1. Served as a Resident Assistant at Solgeo Dormitory, Woosong University, for 6 months, enhancing student support and community engagement.
2. Developed problem-solving skills by addressing student concerns and complaints, fostering a positive living environment.
3. Strengthened communication skills through interactions with a diverse population of international students and Korean staff, improving proficiency in Uzbek, English, and Korean.
4. Managed the check-in/check-out process for residents, ensuring a smooth transition for incoming and outgoing students. Conducted daily room checks to maintain cleanliness and safety standards within the dormitory.
5. Oversaw facility maintenance and reported issues to ensure a comfortable living space for residents. Regularly communicated dormitory rules and guidelines to students, promoting a respectful and compliant community atmosphere.
6. Assisted in dormitory administration tasks, supporting the overall management and operation of the residence

EDUCATION AND TRAINING

01/03/2024 – CURRENT Daejeon, South Korea
BACHELORS Woosong Univeristy

Website https://english.wsu.ac.kr/main/index.jsp | **Level in EQF** EQF level 4

01/01/2018 – 01/01/2021 Kanpur, India
CERTIFICATION IN ADVANCE CYBERSECURITY CyberX Technologies

Website https://www.cyberxtechnologies.com/ | **Level in EQF** EQF level 3

LANGUAGE SKILLS

Mother tongue(s): **HINDI**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C2
KOREAN	B1	C1	B2	B2	B2
PANJABI; PUNJABI	C2	C2	C2	C2	C2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Python (PyROOT, RDataFrame; ML: Keras, TensorFlow) | AI | NLP | ML | Linux | Windows | Cybersecurity checks | C | C++ | Tableau | PowerBi

PUBLICATIONS

2023
Repercussion of ChatGPT in Cybersecurity

The ChatGPT large language model, developed by OpenAI, has significantly transformed the landscape of natural language processing and machine learning.This model has diverse applications ranging from chatbot development and question-answering to language generation. However, the extensive use of ChatGPT has led to concerns about its potential security implications. This research investigates the cybersecurity risks associated with ChatGPT and proposes methods to mitigate them. The study analyzes the security vulnerabilities in the model's training data, data processing, and language generation. Several solutions are suggested to address these issues, such as adversarial training, robustness testing, and implementing data privacy and security measures. The primary goal of this study is to raise awareness of the security implications of language models like ChatGPT and provide guidance on building secure and reliable AI systems.

Dr. Preethi Ananthachari , Gurpreet Singh

2024
Assessing the vulnerabilities and impacts of open SSH ports on Centos 9 virtual machines hosted on MAC ARM computers CVE-2023-25136

In today's world where the technology is growing so fast and rapidly, there is a need of cybersecurity professionals in every field. The more data you have the more crucial it is to make it secure, in this research paper we dive into the vulnerability of SSH (Secure Shell Protocol) in CentOS 9 Stream which is by default open when installed on Parallels Desktop in Apple Mac Air M1 (Silicon chip & Intel), as on research we get to know that the companies like HCL Technologies, Wipro, Fujitsu and so many others are using Parallels Desktop now days for running Virtual Operating Systems, on testing different Virtual Operating system and finding basic vulnerabilities we came across an operating system which was behaving differently when installed on Windows Virtual Box and when installed on Parallels Desktop on Mac Air M1, on further testing we were able to find that on Windows Virtual Box the RHEL based Linux operating

system CentOS when was installed was having SSH (Secure Shell) port closed but when installed on Parallels Desktop on Mac, the port was opened by default and was easily accessible with another machine by SSH command (Secure Shell). The research is based on understanding the ARM based operating system and why these operating system doesn't allow many Linux based operating system to get installed on mac. As mentioned, that big companies are using Parallels Desktop now a days, we understand and studied how ARM architecture works as for a beginner and would also discuss how the configuration file when downloaded on Parallels Desktop misconfigured by default as compared to when installed on Windows Virtual Box. In this paper we will discuss about the CVE-2023-25136 which was being public in February 2023 as well.

Dr. Saurabh Singh

2024

[The Role of Data Analytics in Driving Business Innovation and Economic Growth- A Comparative Study Across Industries](#)

This research paper examines the pivotal role of data analytics in fostering business innovation and economic growth across various industries. Through a comparative analysis of different sectors, including e-commerce, fast food, and social media platforms, we explore how data-driven insights are reshaping business strategies and market dynamics. The study investigates the implementation of big data analytics in small and medium enterprises (SMEs), the growth of the fast-food industry in India, and the utilization of analytics tools across social media platforms. By analysing case studies and industry trends, this paper highlights the transformative impact of data analytics on business performance, customer engagement, and overall economic developmentcription...

Gurpreet Singh

HONOURS AND AWARDS

01/03/2024
Woosong University Scholarship Foundation Program 2024 – Woosong University

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01/07/2024
1st place in capstone project jointly conducted with SeAH Steel – SeAH Steel

01/05/2024
Global Leader at □□□□ □□□□□ □□□□□□□ 2024 – □□□□ □□□□□ □□□□□□□

01/05/2024
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