Gunasekhar Jenni

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ABOUT ME

I am a Masters student in Computer Science at the University of Paderborn. I have done projects related to Python, the Internet of Things, and machine learning. I am looking for a challenging role in a reputed organization where I can utilize my skills and knowledge in the best possible way for the growth of the organization.

WORK EXPERIENCE

Research Assistant

Fraunhofer IEE [01/06/2023 – Current]

City: Kassel | **Country:** Germany

1. Working 10 hrs/week.
2. Involves research projects which require use of Python, PostgreSQL, Spyder, Gitlab, SourceTree, and ArcGIS.
3. Analysis of Deutschland federal states data and visualization.

Project Intern

Weir Ensci [01/04/2019 – 30/06/2019]

City: Bengaluru | **Country:** India

1. The main focus of this project was to develop an optimized procurement system for raw materials, i.e. reorder points and optimize order quantities, to estimate the cost of production and to minimize the total cost for industry manufacturing products.
2. Developed an application to streamline the procurement process by helping the user to identify the right vendors, and in managing all the existing vendors in a better organized manner, helping the user to source the right stuff from the right vendor.
3. An interface for buying and selling raw materials and an IoT network consisting of sensors for industry and manufacturing zone.
4. Developed and delivered presentations to the project advisors.

EDUCATION AND TRAINING

Masters In Computer Science

University of Paderborn [01/10/2022 – Current]

Address: Warburger Str. 100, 33098 Paderborn (Germany) | **Website:** https://www.uni-paderborn.de/

Bachelor of Engineering

The National Institute of Engineering [01/08/2016 – 30/10/2020]

Address: Manandavadi Road South Campus, 570008 Mysuru (India) | **Website:** https://nie.ac.in/ | **Field(s) of study:** Computer Science Engineering | **Final grade:** 8.13 (1.93)

Introduction to Internet of Things (Certification)

Indian Institute of Technology Kharagpur [01/07/2018 – 30/10/2018]

City: Kharagpur | **Country:** India | **Website:** https://nptel.ac.in/

Introduction to Programming

Kaggle [11/09/2022 – 12/09/2022]

Website: https://www.kaggle.com/learn/certification/gunasekharj/intro-to-programming

Python Programming

Kaggle [16/04/2023 – 24/04/2023]

Website: https://www.kaggle.com/learn/certification/gunasekharj/python

Git Fundamentals

Great Learning [24/04/2023 – 25/04/2023]

Website: https://olympus.mygreatlearning.com/courses/65405/certificate

Introduction to MATLAB

Great Learning [28/04/2023 – 29/04/2023]

Website: https://olympus.mygreatlearning.com/courses/65405/certificate

Introduction to Scikit Learn

Great Learning [02/05/2024 – 03/05/2024]

Country: India | **Website:** https://olympus.mygreatlearning.com/courses/62481/certificate

Python Matplotlib

Great Learning [10/05/2024 – 11/05/2024]

Country: India | **Website:** https://olympus.mygreatlearning.com/courses/56749/certificate

PROJECTS

[01/10/2023 – Current]

Artificial Intelligence for Systems Engineering

1. The project involves various use cases of systems engineering in integration with generative AI using Retrieval-Augmented Generation, LLMs, and relevant software tools.
2. Involves individual roles like, project manager, scrum master, product owner, software architect, usability engineer.
3. Software development architecture involves the use of tools like LangChain, Llama 2, ChromaDB, GitLab, StreamLit and Python.

Link: https://www.hni.uni-paderborn.de/ase/lehre/projektgruppen/artificial-intelligence-for-systems-engineering-ai4se/

[01/04/2023 – 15/09/2023]

Augmented and Mixed Reality (AR/XR) in chemistry lab To implement the use of AR and XR technologies in chemistry lab environments. Specifically, we want to take the experiments that were previously conducted in a virtual lab and now conduct them in a real lab, using Microsoft Hololens 2 headsets to provide students with visual feedback while conducting the experiment. Involves use of software tools like Unity, VS code and Git.

Link: https://www.hni.uni-paderborn.de/alg/teaching/ss23/archemlab/

[01/07/2019 – 30/07/2020]

Accident Detection and Rescue System We used various technologies like GPS, GSM(SIM 808 GSM GPS module) to locate the victim and employed IoT services (IoT GECKO) to maintain a database of the location. We used ATMEGA 328(Arduino based) Micro - controller as the heart of the system which did all the work. We used a 3 axis

accelerometer (ADXL 335) to measure change in static or dynamic acceleration to detect accident in out system. If the accident is detected, then SMS with google maps location is sent to the registered mobile number so help could reach in time.

[01/04/2019 – 30/06/2019]

Inventory Management System using ML and IoT Developed an interface for buying and selling raw materials and demonstrated an IoT network consisting of sensors for industry and manufacturing zone. The main focus of this project was to develop an optimized procurement system for raw materials, i.e., reorder points and optimize order quantities, to estimate the cost of production and to minimize the total cost for industry manufacturing products.

[05/01/2020 – 30/03/2020]

Smart Management System For Pharmaceutical Refrigerators Using IoT

1. Built a system using a micro controller board which continuously monitors the stock inside the refrigerator by integrating with several sensors and sent an alert to the shopkeeper using a Wi-Fi module. Used image processing technique so that an alarm will trigger if any vaccine is misplaced.
2. Implemented using Arduino and sensors(UV, Camera, Temperature)

[01/06/2019 – 30/08/2019]

Automobile Review System

1. This project is regarding database management based on reviewing automobiles (cars and bikes) and details of vehicles that are available in the market. This system consisted of reviewing and displaying reviews and rating of other customers for all the vehicles available in the database.
2. Used XAMPP, NetBeans, MySQL, phpMyAdmin

PUBLICATIONS

[2020]

Accident Detection and Rescue System

1. Published in IJARCEE - International Journal of Advanced Research in Computer and Communication Engineering. Volume 9, Issue 5, May 2020
2. Impact Factor 7.078
3. Indexed by Microsoft Academic, Google Scholar, Mendely, NAAS Accredited Science Journal Thomson Reuters ID I-8645-2027
4. A system which detects accident of a vehicle by IoT system which consists of accelerometer and sends rescue message with location using GSM/GPS module.
5. We used various technologies like GPS, GSM (SIM 808 GSM GPS module) to locate the victim and employed IoT services (IoT GECKO) to maintain a database of the location. We used ATMEGA 328(Arduino based) Micro- controller as the heart of the system which did all the work. We used a 3 axis accelerometer (ADXL 335) to measure change in static or dynamic acceleration to detect accident in out system. If the accident is detected, then SMS with google maps location is sent to the registered mobile number so help could reach in time.

DIGITAL SKILLS

Python, Scikit-Learn, Numpy, Matplotlib / Julia Coding / LangChain / C++ / C / HTML / CSS / MySQL / Machine Learning / Internet of Things / Unity / Canva / Object Oriented Programming / SQL / Microsoft

Powerpoint / Microsoft Word / Microsoft Excel / Google Sheets / Google Docs / Google Drive / GitLab / GitHub / MATLAB / Git / LLMs / Spyder - Anaconda / Model Based Sysems Engineering

HONOURS AND AWARDS

[07/06/2019] Weir Ensci

Top 7 finalist in Weir Ensci TechMeraki 2019 Idea to Innovation

1. Secured position among top 7 finalists among 40 groups in competition conducted by Weir Ensci.
2. Idea - Inventory Management System using ML and IoT

[30/10/2018] Indian Institute of Technology Kharagpur

Elite Certification in Introduction to Internet of Things (NPTEL) Successfully completed the course with a consolidated score of 66% during a period of 12 week course.

CONFERENCES AND SEMINARS

[01/08/2019 – 27/02/2020] Mysuru, India

IoT based Accident Detection and Rescue System Based on the paper and project mentioned above.

ADDITIONAL ACADEMIC PERIOD

[01/11/2020 – 31/12/2021]

Appeared for Indian Government Exams

Prepared and appeared for various Indian Government Exams.

LANGUAGE SKILLS

Mother tongue(s): Telugu

Other language(s):

English

LISTENING C1 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

German

LISTENING A1 **READING** A1 **WRITING** A1

SPOKEN PRODUCTION A1 **SPOKEN INTERACTION** A1

Hindi

LISTENING C1 **READING** B2 **WRITING** B2

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

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