

AKSHAYA BATHULA

Computer Science & Software engineering

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Karlskrona, Sweden

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EDUCATION

Blekinge University of Technology

Masters in Software Engineering

Jan 2022 – June 2023

Karlskrona, Sweden

- Relevant Coursework: ML, AI, Agile, and Lean methodology, Software Metrics

Jawaharlal Nehru Technological University

Bachelors in Computer Sciences

May 2018 – Jan 2022

Hyderabad, India

- Relevant Coursework: ML, Data Structures, AI, and Software engineering, operating systems, Design, and Analyse algorithms
- Computer Science Major GPA: 8.34/10

EXPERIENCE

Robotics - Intern

Path Creators

Oct 2018 – Feb 2019

Hyderabad, India

- Exposure to working on the data sets and usage of ML algorithms.
- Gained knowledge about the internal working of the robots and their working procedure with the help of AI technologies.
- Developed mini AI robots. performing tasks like Obstacle detection, Temperature sensing, Line following.

SKILLS

PROGRAMMING LANGUAGES: C C++ Python

PHP

DATABASES: SQL Mongo DB

TOOLS and TECHNOLOGIES: ML AI NumPy

Pandas Scikit-learn NLTK Tensorflow Turtle

Keras PyTorch Requests Tkinter Open CV

Flask Selenium Python Automation JavaScript

HTML5 CSS Bootstrap Web Automation

LANGUAGES

English - Full Proficiency

Swedish - Limited Working Proficiency.

HOBBIES

Dancing, singing, and reading books.

PROJECTS

Sign language detection

- Developed a project that aims at building a machine-learning model that will be able to classify the various hand gestures used for fingerspelling in sign language with the help of machine-learning algorithms.

Used: Python CNN Deep learning

ML Numpy openCV keras

Tensorflow

Chat Bot

- Evolved an intelligent chatbot using NLTK components and AI techniques.

Used: Python NLTK Pytorch AI

Stock market prediction

- Developed a stock market prediction website that predicts the stock market prices to find the future value of the company using Machine Learning Algorithms.

Used: Python Pandas Numpy

sklearn ML keras matplotlib

A medical supplies website using automation

- Designed and developed medical supplies automated website using python and python automation which automates daily with the donor details and the count of oxygen cylinders to the receiver's end.

Used: Python python Automation

web automation SQL PHP

Web Scraping

- Data collection and data manipulation from various websites or portals by inspecting the page using scraping techniques.

Used: Python BeautifulSoup selenium

Requests Scrapy

Weather forecasting

- A weather application that retrieves the data of weather using the API and parses, and analyses the data accordingly.

Used: Python Pandas Matplotlib

imageio Numpy statsmodels

seaborn folium

Flight Deal finder

- Using the API of the flight's website, find the cheapest flights available and sent the sms or email to the registered mobile number.

Used: Python datetime Requests

pprint smtplib client

COURSE WORK

Research proposal on car hacking and towards the prevention of car hacking

- proposed the project by discussing the various car hacking techniques and suitable methods to prevent the hacking. Various methodologies are taken into consideration on which methods can be effective to prevent car hacking. Concluded with the most suitable and effective approach to mitigate and avoid car hacking.

Maze game using genetic algorithms in AI

- To get acquainted with the idea and implementation of genetic algorithms using a maze game. implementing the GA that will find the solution to find the path by optimizing the problem automatically. Finding the shortest and optimal path for the mouse to reach its cheese or end position.

Comparison of 3 learning algorithms in ML

- Selecting three supervised classification algorithms and performing the comparison between the selected algorithms based on computation performance in terms of training time, predictive performance based on accuracy, and predictive performance based on F-measure.

Evaluating the maintainability of ArtOfIllusion

- Developed a GQM-based measurement framework, planning and conducting an empirical investigation. Further selected and used relevant metrics to evaluate a software quality attribute of ArtOfIllusion.

Evaluating code quality using code reviews

- Understand the subjectivity of code quality and evaluate the code quality on open source software using two code review tools. comparing the outcome of the tools and manual evaluation of the code. Also evaluating the quality of code, usefulness, and accuracy of the tool.

Chat Bot using Natural language processing

- Evolved an intelligent chatbot using the NLTK tool kit in an agile and lean manner. Formulated the report on how we built the chatbot using five agile and lean principles including Documenting the activities, routines, requirements, technical solution, planning, estimations, risk management, test, and value of the project. Also Included is the scrum board.

Threat modeling of the proposed EVV system

- Formulated a report which includes the decomposition of the application, detailed Data flow diagram(DFD), and categorization, according to stride, threats, and mitigation.

SOFT SKILLS

- Communication
- Collaboration
- Adaptability
- Time Management
- Problem-solving
- Conflict Resolution
- Creativity
- Resilience
- Critical Thinking
- Flexibility

RESEARCH PROJECT

Master thesis

- Currently working on the research of generating and designing the test reports. This research aims to design and evaluate test reports for 4 types of GUI testing methods i.e. manual regression, manual exploratory, automated regression, and automated exploratory. By evaluating these test reports, the study helps to understand the necessity and usefulness of having different testing reports for different kinds of GUI tests.

ACHIEVEMENTS

- Part of a Non-profit Organisation known as BHUMI organization, teaching the kids on a weekly basis.
- Volunteered and became a member of the Women's Club in JNTU which helps in providing safety and wellness for women.
- Child prodigy puzzle solving award by Eenadu newspaper.
- District level championship in Kho-Kho traditional game in India.
- Proposed a startup idea in J-Hub.
- Developing a startup company.

CERTIFICATES

- Robotics Internship (09/2018 - 01/2019) - Path creators.
- 100 days of Python (03/2022 - 06/2022) by Angela Yu - Udemy
- Complete 2022 data science and machine learning Bootcamp - Udemy
- Crash course on python
- Big data on Amazon Web services(AWS)
- Web development masterclass - Udemy

OTHER PROJECTS

- Stock Trading news alerts
- Habit tracking project
- Workout tracking
- creating a Spotify playlist using a musical time machine
- Automating job applications on LinkedIn
- Instagram follower bot
- Data entry job automation
- Auto tinder swiping bot
- Hangman Game
- Snake game with GUI interface
- Pong arcade game
- Flashcard app
- GUI quiz app