GURMEHER SINGH PURI

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Profile

I am a Third-semester master's student in Computer Science with a focus on Artificial Intelligence at the University of Freiburg. Currently working as a Work Student at Fraunhofer ISE, Freiburg, with a background as a Software Engineer at Samsung R&D Institute. Expertise in software development, automation testing, and various programming languages. Seeking opportunities to enhance skills and knowledge, preferably in a tech lead role.

Employment History

Working Student, Fraunhofer-Institut für Solare Energiesysteme ISE, Freiburg, Germany March 2024 - Present

- Developed the Spotlob project, an image processing library designed to automate detection tasks such as circle and line analysis.
- Created pipelines consisting of various processing steps to analyze images and extract features.
- Implemented Python libraries like Poetry for dependency management and used Docker for containerization.
- Automated Projects and processes by integrating Apache Airflow for workflow management, MinIO for object storage, and Flask for webhook notifications.
- Set up and configured servers from scratch, including hardware, OS, network, software, security, performance tuning, and Active Backup for data integrity and reliability.

Software Engineer, Samsung Research and Development Noida

August 2021 - September 2023

- Developed 12 tools and websites using JavaScript, Python, and RPA to reduce manual efforts.
- Expertise in Android Studio and JUnit for automated test cases for Samsung Knox security platform.
- Managed smoke executions on 1000+ devices using CI/CD tools.
- Created automation frameworks for Samsung Health and Samsung Knox AR.
- Developed and maintained software in Java, Python, and JavaScript.
- Created a CI/CD pipeline reducing time-to-deployment.

Software Engineer Intern, Samsung Research and Development Institute Noida, India January 2021 - July 2021

- Developed 2 websites using JavaScript, Python, and CSS.
- Participated in Samsung Knox automation test case development and server handling using Dom judge systems.
- Learned RPA, Spring Boot, and Android Studio.

Web Developer Intern, Bharat Heavy Electrical Limited (BHEL)

May 2019 - July 2019

- Developed a basic website called "Student Tracker" using Eclipse and Tomcat Server 9.0.

Skills

- Programming Languages: Python, Java, C++, SQL
- Tools & Technologies: Git, Android Studio, CI/CD, Robotic Process Automation (RPA), Gitlab,
 Apache Airflow, MinIo, Docker
- **Software Development:** Process Automation, Web Development, Data Processing, Automation testing.
- Certifications: Microsoft Certification in HTML5 with JavaScript and CSS3, Google Digital Marketing Expert, UiPath Certified Professional Automation Developer Associate

Education

Master's in Computer Science, Albert Ludwigs University of Freiburg

October 2023 - Present

Bachelor's in Computer Science and Engineering, Amity University Uttar Pradesh, India, Noida

July 2017 - June 2021

Projects

Automation Process Tool: (Python, MinIo, Apache Airflow, Docker)

March 2024 - June 2024

- Created a tool that automates any project by integrating Apache Airflow for workflow management,
 MinIO for object storage, and Flask for webhook notifications.
- This tool streamlines the process of uploading images to MinIO, triggering analysis pipelines, and retrieving results automatically.

Chatbot for Research Assistance (Python, NLP)

June 2023 - August 2023

- Developed a Python-based chatbot with NLP capabilities using NLTK and spaCy.
- Integrated with research databases for secure data retrieval and created a user-friendly interface.

Automated Data Processing Tool (Python, Pandas)

January 2023 - March 2023

- Automated data processing tasks, including data cleansing and transformation, using the Pandas library.

RPA SWEET Tool (Python, RPA)

June 2022 - October 2022

- Automated testing manual work using RPA, saving over 120,000 hours yearly.

RPA CR-CT Tool (Python, RPA)

January 2022 - April 2022

- Developed a tool for downloading software binaries overnight, saving 9,200 hours yearly.

RPA SWC Analyst (RPA)

March 2023 - July 2023

Analyzed scores of Samsung Professional coding tests and provided recommendations, saving 20,000 hours yearly.

Publications

- A Review on Cloud Computing

January 2019 - May 2019

- Cryptographic Technique for Communication System through Diffie Hellman Key Algorithm

December 2020 - June 2021

- High Performance Computers and Computational Science

December 2019 - April 2020

Achievements

- NSIC: Entrepreneurship Orientation Program (EOP)
- Microsoft Certification for Programming in HTML5 with JavaScript and CSS3
- Google Certification: Digital Unlocked (Digital Marketing Expert)
- UiPath Certified Professional Automation Developer Associate
- Stanford online course on Algorithm: Design and Analysis
- Samsung RPA Best Team Award
- Samsung Employee of the Quarter Award for Q1 and Q3 2022
- Samsung Best Project award for RPA SWEET Tool