RAJ BASNET

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PROFILE

Visionary engineer with proven experience in software development and passion for software engineering and system designs along with coding in Java and several programming languages. Determined to add value to the company and the people through my experience and knowledge in software analysis and application development and also enthusiastic to learn new programming languages and frameworks.

EDUCATION

Western Michigan University December 2021

Bachelor of Science in Computer Engineering GPA: 3.76

Coursework : System Programming Concepts, Microcontroller Applications, Computer Systems, Digital Design, Digital Signal Processing, Linear Systems, Computer Architecture, Data Structures, Algorithms

WMU Lee Honors College, Dean's List (All semesters)

PROFESSIONAL EXPERIENCE

SAGE IT Inc., Frisco, TX February 2022 – July 2023

Software Engineer/Developer Analyst

Experience as a Software Engineer/Developer reflecting strong technical qualifications coupled with hands-on application design ability.

Experience with C, Java, JavaScript, HTML, CSS, etc. and experience developing applications using Java 8.

Strong experience delivering optimized, effective and well-documented code, adhering to quality standards and delivery dates.

Strong experience on programming by using the IDE's such as Eclipse, IntelliJ, NetBeans, Visual Studio Code.

Have motivation to adapt to new software applications, with good verbal and written communication.

Responsibilities:

- Analyzed and enhanced the development of 40+ business software applications for the client by coding using Java resulting in the milestone completion to provide a digitized platform for all those applications.
- Involved in all stages of the Software Development Life Cycle (SDLC) of the project in agile methodology using the JIRA tool for project management of business applications and Confluence for documentation.
- Implemented complete Maven build lifecycle to achieve organized application structure and conflict free dependencies in pom.xml file for around 10+ outdated applications.
- Developed and deployed Microservices based applications using Spring Boot and implemented Core Java coding to change the logic for various applications so that all the required information can be filtered properly to meet the requirement of company wide digitization of application data collection.
- Managed and resolved around 1000+ account breaks occurring in various servers of the application for efficient functionality governed by the client's system to achieve system digitization and automation.
- Assisted the System Managers to remediate issues related to SAP files, T3 files and breaks present in the system for the milestone completion of company wide digitization of application data collection.
- Coordinated with the T3 automation team to develop and analyze the code for 70+ applications to complete onboarding and processing of those applications to Aveksa for company wide governance.
- Achieved semi-automation for almost 40+ business applications by utilizing Java to assist system managers to automate various systems in the production environment.
- Managed each application's 5+ MRA (Matters Requiring Attention) related issues for cross-functional teams and resolved them with my team to smoothly complete digitization of SAP for those applications.
- Worked with the managers and team to enhance new ways for smooth running of various business applications to achieve the vision of the bank moving towards automation and digital platforms.

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SKILLS

Programming Languages: Java, C, SQL, C++, Python, VHDL, Verilog, Javascript, HTML, CSS

Technologies/Platforms: Spring, Spring Boot, REST APIs, FPGA, Arduino, MySQL, NodeJS, Angular

Tools: MATLAB, AutoCad, JIRA, MS Office, WinSCP, Putty, Eclipse, IntelliJ, Unity, Vivado, VSCode,

Soft Skills: Dynamic, Adaptable, Teamwork, Communication, Innovative, Leadership, Problem Solving

ACADEMIC PROJECTS/EXPERIENCES

IOT GREENHOUSE MONITORING SYSTEM (IOT GMS) Fall 2021

- Designed and tested an IoT GMS to provide wireless monitoring and control of greenhouse environments.
- Utilized ESP32 module, PCB designs and AWS cloud broker for the IoT GMS system and managed different back-end and front-end coding for functionality and user interface.

C/JAVA/ANGULAR PROGRAMMING PROJECTS Spring 2021

- Designed a project to create a fake file program (which imitates the behavior of make file in C) using multiprocessing, pipes, and dependency tree in UNIX environment.
- Developed C programs in UNIX environment for file I/O, data parsing and asynchronous threads with mutex.
- Designed a memory cache simulator using C on a Linux system to behave as cache memory for dataset.
- Utilized Java to design a memory allocator simulator and to implement graphs to find shortest paths for the US road network.
- Worked on several Java projects that featured the use of data structures, database, object-oriented design, and web apps.

GRADING ASSISTANT October 2020 – May 2021

- Assisted Professor for grading exams/exercises for Microcontroller Applications and Digital Design course.
- Prepared alternative solution codes for different exam problems involving coding in VHDL and C language.

COMPUTER ARCHITECTURE PROJECT Spring 2020

- Designed a 10-bit pipelined CPU by creating ALU, registers, control unit, data memory, and instruction memory to implement multi-cycle architecture.
- Utilized Verilog language and MIPS instruction set to design 10-bit CPU and cache memory and run several test programs.
- Prepared test bench files for running simulations using Vivado simulator to verify the CPU functionality.

MICROCONTROLLER PROJECT Spring 2020

- Designed a simple mobile robot control system with sensors for its travel to specified distance in a hallway using STM32CubeMX software and IAR embedded workbench programming in C++ language.
- Utilized STM32 board and STM32CubeMX with embedded C++ to develop an asynchronous serial communication system using handshaking techniques to communicate information.

DIGITAL DESIGN PROJECT USING FPGA Fall 2019

- Designed and simulated a serial data processing module run by the state machine on an FPGA using VHDL language in Vivado software and ModelSim simulator for real time simulations.
- Designed and simulated an asynchronous sequential design using VHDL and ModelSim to generate Mode 0/1 output for I/O chip for bidirectional data transfer using handshaking.

ACHIEVEMENTS

- Diether H. Haenicke Full Tuition Scholar (Western Michigan University)
- Lee Honors College Scholar (Western Michigan University)
- Civics Engagement Scholar, Presidential Scholar and Honors Program (Norwich University)