

Md Showkat Hossain Chy

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EDUCATION

Baylor University Jan 2022 – Dec 2023
Masters in Computer Science Waco, TX

Daffodil International University Jan 2013 – May 2018
Bachelor of Science in Computer Science and Engineering Dhaka

WORK EXPERIENCE

Fullstack Developer Jan 2022 – Jun 2022
International Collegiate Programming Contest (ICPC) Lab, Baylor University Waco, TX.

- Developed new features, fixed bugs, and made code improvements for the ICPC official in Java-Spring-Boot and ReactJS.
- Merged ICPC official and ICPC Hotel ReactJS projects to communicate with different microservices.

Senior Software Engineer Mar 2020 – Dec 2021
Samsung R&D Institute Bangladesh (SRBD) Dhaka

- Developed Samsung Accessory Protocol(SAP) library in C/C++ for seamless and secured communication, and data exchange.
- Implemented message queues using Dialog's DA1469x SDK for efficient inter-task communication.
- Taken part in software architecture and system design, code reviews, and tasks assignment among team members.

Software Engineer Jul 2018 – Feb 2020
Samsung R&D Institute Bangladesh (SRBD) Dhaka

- Built FreeRTOS-based applications & backend services using test-driven development (TDD) for wearable devices.
- Developed and debugged applications for wearables using JTAG and worked with MCU peripherals including SPI and UART.
- Designed & developed application's GUI in embedded UI framework (e.g. emWin).

Junior Fullstack Developer Jan 2018 – Jun 2018
Divine IT Limited Dhaka

- Developed new features for Django-based ERP solutions encompassing payroll, HR, inventory, sales, procurement, etc.
- Integrated a payment system to purchase AirTicket using REST API in Python, Django, Javascript, Ajax, and JQuery.

INTERNSHIP AND ACADEMIC EXPERIENCE

Software Engineer Summer Intern May 2023 – Aug 2023
Tech @ Tyson Foods Springdale, AR.

- Developed a VR application in Blueprint & Python to benchmark human performance in identifying burned chicken nuggets.
- Deployed a Perforce server locally for version control and later migrated it to AWS for improved accessibility.

Graduate Teaching Assistant Jan 2022 – Dec 2023
Baylor University Waco, TX.

- Java & C++ programming course instructor, facilitating students to develop problem-solving skills, grading assignments for labs.

TECHNICAL SKILLS

- **Languages:** C, C++, Python, Javascript, Java, Blueprint, HTML, CSS, Bash.
- **Frameworks & Libraries:** Django, ReactJS, Free RTOS, Java Spring Boot, Bootstrap, jQuery, NumPy, Pandas, TensorFlow.
- **Databases:** MySQL, PostgreSQL, MongoDB.
- **Developer Tools:** Git, Perforce, Docker, Postman, Grafana, AWS, EC2, S3, CloudWatch, GCP, Kafka, Jira, JTAG.
- **Problem Solving:** Solved 1300+ programming problems in [UVA](#), [HackerRank](#), [LeetCode](#), [LightOJ](#), and [Codeforces](#) etc.
- **Technical knowledge:** Distributed Systems, Software Architecture, Bluetooth Protocols, Microservices, Design Pattern.

HONORS AND AWARDS

- CTO Award (Team), Samsung Electronics, 2019.
- Champion in DIIT Code Fest, 2015.
- 35th in the National Collegiate Programming Contest (NCP), 2015.
- 1st runner-up in Intra University Programming Contest, 2014.
- 3rd runner-up in Intra University Mathematics Olympiad, 2014.

PROJECTS

Transaction Recovery and Lock Manager | Python, MongoDB, MapReduce, PySpark, MySQL Sep 2022 – Feb 2023

- Created Python-based database transaction system ensuring ACID properties for reliable and consistent data operations.
- Implemented strict two-phase locking and write-ahead logging for data integrity and fault tolerance in critical database.
- Written programs to analyze baseball data, implementing Weighted On-base Average for Hall of Fame eligibility assessment.

Dual Sensor PoC | C, C++, FreeRTOS, Bluetooth Low Energy Jan 2021 – Dec 2021

- Demonstrated real-time transmission of wearable IoT sensor data to smartphones every 15 milliseconds.
- Enabled seamless and efficient data transfer using Bluetooth Low Energy (BLE) protocol for Nintendo gaming console.

Galaxy Fit and Galaxy Fit2 | C, C++, FreeRTOS, BLE, Dialog SDK Nov 2018 – Dec 2020

- Established secure connections between wearables and smartphones, facilitating encrypted data transfer with BLE & SAP.
- Resolved BLE compatibility issues for seamless connectivity with Android/iOS smartphones.
- Designed and implemented a customized message packet format for successful integration with Bluetooth.
- Implemented features related to fitness tracking, sleep monitoring, stress analysis, and heart rate measurement.
- Collaborated with Samsung HQ in South Korea for streamlined issue resolution and timely product release.