Md Rakin Sarder

Senior Software Engineer

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With over 6+ years of experience in the industry, I have a strong background as a highly skilled software engineer with expertise in both frontend and backend development, technical leadership, and system design. My skill set includes technologies such as React, React Native, Preact, CSS, Sass, Material, Tailwind, Bootstrap, Redux, Mobx, Figma, NodeJs, Flask, Medusa, SQL, MongoDB, Redis, REST, GraphQL, Docker, Terraform, AWS, server management, Linux and more. I have experience in agile methodologies and DevOps, including continuous integration and deployment, and a track record of delivering successful projects and mentoring junior team members. I have worked in various industries including finance, robotics, consulting, and academia.

🏷️ Skills

- Front-end: React, Angular, Preact
- UI styling: CSS, Styled components, Tailwind, Bootstrap
- DOM manipulation, Redux, Mobx, Isomorphic React
- Wireframing and design translation (Figma, XD)
- Backend: NodeJs, Flask, Django, Medusa
- DB skills: SQL, MongoDB, Redis
- API Design (REST and GraphQL)
- DevOps skills: Docker, Terraform, CI/CD
- Cloud skills: AWS, Linode, GCP, IaaC, server management
- Linux
- Strong interpersonal and collaboration skills
- SDLC, System Design, Technical Leadership

💼 Work History

2022-06 - 2023-01

Senior Software Engineer

MarktoMarket, Edinburgh, United Kingdom

- Worked on both frontend and backend of web applications using React, Redux, SCSS, Flask, and Python

- Acted as an agile tech lead, managing agile ceremonies such as sprints, standups, retrospective sessions, and demo sessions
- Implemented and maintained continuous integration and continuous deployment pipelines using tools such as AWS, Git, CircleCi, and Docker
- Trained and mentored junior developers and engineers, teaching skills in React, Python and AWS and working to improve overall team performance.
- Worked with CTO, stakeholders, clients and developers to resolve technical issues.
- Reviewed project specifications and designed technology solutions that met or exceeded performance expectations.
- Worked with software development and testing team members to design and develop robust SaaS solutions to meet client requirements for functionality, scalability and performance.

2021-11 - 2022-06

Fullstack Engineer

IQUAD, London, United Kingdom

- Worked with software development and testing team members to design and develop robust solutions to meet client requirements for functionality, scalability and performance.
- Developed user interfaces for corporate client projects and worked on their Dockerized deployment to AWS via ECR and ECS.
- Wrote highly maintainable, solid code for software system, forming core framework and earning consistent praise from subsequent developers since initial version.
- Performed advanced engineering in configuration, management and deployment of AWS cloud environments.
- Monitored automated build and continuous software integration process to drive build/release failure resolution.
- Actively participated in agile-scrum project development processes, including: project goal establishment, requirement gathering from stakeholders, backlog management

Primary tech stacks I worked with:
- Frontend: React, Typescript, NextJs, Redux, Styled Components, Tailwind
- Backend: NodeJs, Nx, Typescript, Python, PostgreSQL
- API: REST, GraphQL
- DevOps tools: Git (via Gitlab), Azure DevOps, Docker, Gitlab CI, Terraform, AWS

2020-09 - 2022-11

Independent Software Consultant

Tidwell Enterprises LLC, Mississippi, USA

- Lead software development initiative as subject matter expert and primary point-of-contact for liquidation management staffs
- Manage and maintain company's cloud services (AWS, Linode), which includes servers, databases, mailing and lambdas.
- Ensuring top-graded security and backup services for the company's data
- Wrote highly maintainable, solid code for full-stack software system, forming core framework and earning consistent praise from subsequent developers since initial version.

Primary tech stacks I worked with:
- Frontend: React, Javascript, Typescript, Bootstrap, SASS

- Backend: NodeJs, Express, Python
- API: REST, GraphQL
- Database: NoSQL (MongoDB), SQL (MariaDB)
- DevOps: Git (via Github), Jira, Docker, Github Actions, Terraform, AWS, Linode

2021-09 - 2021-10

Research Associate
Heriot-Watt University, Edinburgh, United Kingdom
- Worked on cloud telepresence robotic communication technologies (websockets, gstreamer, webrtc and rosbridge)
- Developed and worked on a microservice-based rapid prototyping framework for remote telepresence application development called RetraDev. The framework provides a networking architecture that may enable quick prototyping capabilities for robot-agnostic remote programming, which supports both real-time and non-real-time tasks.
- Collaborated with other laboratory colleagues and the University of Strathclyde into designing a robotic Tele-assessment application to conduct assessments on the Activities of Daily Living (ADL)s of patients with neurological impairments.

Primary tech stacks I worked with:
NodeJs, React, Socketio, Websocket, Gstreamer, FFMPEG, WebRTC, Python3, ROS, MongoDB, Linux (Ubuntu server 20.04, worked on SSH tunneling, bash scripting, Nginx, DevOps and websocket relays)

2020-07 - 2020-09

IoT Module Designer (Intern)
Spinsplit LLC, Hungary
- Designed "Post Feed Module", an embedded web widget for the SpinSplit Studio software that displays and controls the session logger based on LabVIEW and HTTP protocol.
- Developed algorithm to decode encoded real-time logs from data feeds and display.
- Deployed and tested modules on production systems and wrote use-case documentation of the project.

2017-01 - 2019-08

System Analyst
Decipher Tech, Dhaka, Bangladesh
- Programmed and Administered "L-Plus package",a proprietary business automation software built for liquidation companies.
- Implemented new tools to register, manage and monitor liquidation incoming and outgoing pallets.
- Developed a mapping-based algorithm to automate the sorting process of liquidated products, which helped the client company to improve processing efficiency by 60%.
- Designed three in-house retail Python API libraries "AMZ Info", "Wlmt Info" and "UItem Info", for USA-based liquidation marketplace.
- Achieved a 33% revenue increase to the company in the year 2018-2019.
- Consulted with clients on designing and formulating their technical model, strategies and action plans.
- Supervised development teams in Agile SDLC and RAD practices.
- Ensured the design of premium quality Ecommerce applications and their deployment in local and international marketplaces.

- Reviewed individual department performance and worked with leadership to improve processes, procedures and practices.

Primary tech stacks I worked with:
- Frontend: ElectronJs, Qt Designer, Bootstrap, Tailwind, VanillaJs
- Backend: Python3, PyQt5, NodeJs, Express, PHP
- API: REST
- Database: SQL (MySQL)
- DevOps: Git (via Github), Linode, PM2, Pyinstaller, Github Actions, Jira, AWS

2014-09 - 2016-06

Research Assistant
Independent University, Bangladesh, Dhaka, Bangladesh
- Experimented with andro-humanoid robot NAO as a part of Human Computer Interaction (HCI) research.
- Developed a vision-to-search application for NAO that allowed the robot to learn about unknown objects in its proximity through a reverse image search algorithm.
- Collaborated with National Health Foundation in building Telepresence robot as abstract physical assistant to doctors. The prototype model was designed using myRIO and LabVIEW.
- Engineered an indoor localization algorithm for the robot that improved the controller efficiency for a non-technical user by 15%.

Education

2019-09 - 2021-08

Master of Science: Smart Systems Integration (Distinction)
Heriot Watt University - Edinburgh, United Kingdom
- Awarded Masters with Distinction
- Received the Erasmus Mundus Scholarship by the European Commission
- Coursework Completed: Sensors, Actuators and IoT, Packaging and Integration, Fundamentals of Smart Systems Integration, IC design, System Level Design (Quartus-VHDL) Relevant occupational skills: IoRT (Internet of Robotic Things) study and design, Different IoRTcommunication standards (Zigbee, Bluetooth LE, Wifi, LTE, 5G), Analog and Digital Design, VHDL, FPGA,ARM/PIC/Pi programming, COM interfacing (UART, I2C, SPI), Testing and Validation of Digital Subsystems.
- Thesis on: The Design and Development of an Elderly Telecare Application Using a Cloud Telepresence Robot-Agnostic Development Framework (Cloud Telepresence Robotics and HRI in health and social care)

2013-01 - 2016-12

Bachelor of Science: Electrical and Electronic Engineering
Independent University - Bangladesh
- Received 100% tuition scholarship
- Vice-Chancellor's Honors list: 11 times
- Dean's List: 5 times
- Awarded Magna Cum Laude
- Ex-president and member of IEEE IUB Student Branch
- Relevant Coursework Completed: Embedded Systems, Data structure and algorithms, Robotics and Autonomous systems, Telecommunication, Op-Amps,

Solid State Electronics

Affiliations

- Institute of Electrical and Electronics Engineers (IEEE)
- Cognitive Assistive Robotic Environments (CARE) Group, HWU
- RALT (Robotic Assisted Living Testbed) lab, HWU

Interests

Artificial Intelligence (AI)

UX/UI design

Big data