# Shakirul Hasan Khan

Software Engineer

#### Education

#### Bachelor of Science in Software Engineering,

Feb 2018 - Jan 2023 | Sylhet, Bangladesh

Shahjalal University of Science and Technology

CGPA: 3.66

- Graduated an average GPA of 3.93 in the final four semesters.
- Courses: Data Structures and Algorithms, Software Requirement Engineering, Software Architecture and Design Patterns, Software Verification and Validation, Data Science, Artificial Intelligence, Machine Learning.

## **Professional Experience**

#### Founder & Lead Engineer, Ponno

2025 - Present | Dhaka, Bangladesh

- Built and managed a team of 2 engineers, conducted code reviews, and mentored for on-time deliveries.
- React/Next.js dashboard for merchants to create businesses and manage products & orders.
- RAG-powered chatbot integration with Facebook Messenger (tool-calling + vector search) for product queries and order placement.
- Led customer development, finalized feature set, ran demos, and gathered 10+ early leads to validate product-market fit.
- Tech stack: TypeScript, React, Node.js, ChromaDB, Vercel AI SDK, GitHub Actions.

#### **Software Engineer,** Ramble *⊘*

2023 - Present | Remote, US

- Built a conversational platform enabling users to search and engage with contacts using RAG and LLM technologies.
- Developed a feature for document-based conversations and summary generation leveraging Python-based tools.
- Designed and implemented a rich text editor with real-time collaboration using PlateJS and PubNub.
- Built and tested a web application with Next.js, TypeScript, and Playwright for enhanced user experience.

#### **Contract iOS Developer,** Traders Connect @

2023 – 2024 | Remote, UK

- Developed native modules in Swift for seamless GRPC server integration with React Native.
- Built a reusable component library for cross-platform mobile apps using styled-components.
- Engineered a mobile application with over 20 screens using React Native, ensuring optimal performance.

## Software Engineer, Re:cruit ⊘

2022 - 2023 | Remote, US

- Created a resume-building application with Next.js, TypeScript, and PostgreSQL, integrating OpenAI for content generation.
- Designed comprehensive test suites with Jest and Playwright for Next.js applications.
- Implemented secure authentication systems and data analysis tools using Python and Magic Link.

## **Associate Software Engineer**, Kaz Software *⊘*

2021 - 2022 | Dhaka, Bangladesh

- Designed and implemented over 40 pages for a dual-user interface web application using ReactJS, Redux, and SCSS.
- Upgraded web applications from ReactJS v16 to v18, improving performance and scalability.
- Merged multiple ReactJS applications into a micro-frontend platform using Single-SPA and Docker.

#### **Publications**

## BnPC: A Gold Standard Corpus for Paraphrase Detection in Bangla, and its Evaluation

S Saha, ZA Nobin, MA Chowdhury, MSHK Mobin, MR Amin, S Kar

Proceedings of the 17th Workshop on Building and Using Comparable Corpora (BUCC)@ LREC-COLING 2024, pages 69−84. *⊗* 

- Introduced a benchmark dataset for Bangla paraphrase detection, achieving the highest F1 score of 87.91 with BanglaBERT.
- Dataset and code publicly available on GitHub. *∂*

## Teaching and Mentoring Experience

### Mentor for undergrad thesis, IICT, SUST

2025 | Sylhet, Bangladesh

Provided guidance to a group of two undergraduate students working on their undergrad thesis on human-computer interaction.

## Python and Data Science Instructor,

2024 - 2025 | Bangladesh

EDGE Project by ICT Division of Bangladesh,

Taught Python programming and basic data science to over 100 undergraduate students at three renowned universities. As an industry expert, I covered Python fundamentals, popular libraries like pandas, numpy, and scikit-learn, and machine learning concepts like regression, clustering, and classification algorithms.

## Workshop Instructor, IICT, SUST

2022 | Sylhet, Bangladesh

During my final year of study, I led workshops and classes for first and second-year students in the Software Engineering Society. These sessions focused on data structures, algorithms, competitive programming, and software development.

#### Skills

Languages: TypeScript, Python, C++, Bash, JavaScript, Java, Rust, SQL, HTML/CSS

Technologies and Frameworks: Node.js, PostgreSQL, React, Next.js, Docker, Redis, GCP, Vercel

Developer Tools: Linux, Git, GitHub, VS Code, Cursor, Jupyter Notebook, Chrome DevTools

AI/ML Tools & Techniques: LLMs, RAG, ChromaDB, scikit-learn, Pandas, NumPy, Vercel AI SDK

#### **Projects**

**Vocables**, A vibe-coded vocabulary learning app with the help of AI ℰ

Tech: Next.js, Typescript, Clerk, Polar, Vercel AI SDK

**Coterm**, A command-line AI copilot built with Rust and OpenAI API. *∂* 

Tech: Rust, Next.js, Vercel

SUST Guest House Management System, A web app to book and manage SUST guest houses ℰ

Tech: React, Typescript, ChakraUI

View more on LinkedIn ∅

# **English Language Proficiency**

• IELTS - Overall Band Score: 7.5 (L: 8.0, R: 8.0, W: 6.5, S: 6.5) ₽

## **Awards**

University Merit Stipend, Shahjalal University of Science and Technology	2021
Codeforces Specialist, Max Rating - 1542	2019
First Runner Up, BUP Hackathon	2019
<b>National Junior School Merit Scholarship,</b> Government of Bangladesh	2013
Organisations	
SUST SWE Technovent, Event Coordinator	2023
SUST ACM Student Chapter, Mentor	2021 - 2022
SUST ACM Student Chapter, Publications Secretary	2020 - 2021
SWE Society, Publications Secretary	2019 - 2021
References	

**Dr. Mohammad Shahidur Rahman**, Professor, Computer Science and Engineering, Shahjalal University of Science and Technology rahmanms@sust.edu, +880-191-493-0807

**Dr. Ahsan Habib**, Associate Professor, Institute of Information and Communication Technology, Shahjalal University of Science and Technology ahabib-iict@sust.edu, +880-191-579-6886