ADITYA CHAKMA

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🔗 Linked-in 🔗 Github 🔗 Kaggle 🔗 Portfolio

Objective

I am a Software Engineer with three years of experience from Dhaka, Bangladesh. I aim to build reliable, scalable, maintainable, and efficient systems.

PROFESSIONAL EXPERIENCE

Therap (BD) Ltd. <div align="right">Dhaka, Bangladesh</div>
Software Engineer II <div align="right">*March 2021 - Present*</div>

- Worked on building and maintaining **an USA based SaaS application** with 20+ state contracts. The application has $30,000+$ active users and serves over $500,000+$ individuals
- Worked on a team of 50+ individuals and maintained core system functionalities like login, EVV, Scheduling, secure messaging, etc.
- Worked on several state projects for the USA with HIPAA compliance
- Worked on state projects for KY and TN, and contributed to meet 21st Century Cures act mandated by CMS, which helped Therap to secure state contracts
- Optimized on-demand loading for js scripts across the system, which significantly reduced network throttling
- Led core projects: Salesforce live chat integration in Therap System and automated chat import process from third party system using RestAPI
- I wrote several RestAPIs for several existing modules to support cross-platform development. ie. Mobile platforms, IOT
- Was involved in dev and QA side server deployment
- Working on Webhook, Message queue, Push notifications, RESTful APIs, Spring Security, REACT, Spring Core, Servlet, Hibernate, JDBC, Mysql, Git, and Java 8

TECHNICAL SKILLS

Programming Languages: Java, Python, C, C++, C#, R, Matlab, JavaScript, JDBC
Competitive Programming: Solved 500+ problems on various online judges
Database: PostgreSQL, MySql, Oracle
Dev-Ops: Nginx, Docker, Weblogic
Project Management: Jira, Trello
Miscellaneous Tools and Frameworks: Shell Scripting, Git, Linux, LaTeX, XRabel, JRabel, JDBC, Hibernate, Spring MVC, Spring Core, Spring Boot, Spring Security

EDUCATION

Bangladesh University of Engineering and Technology (BUET) <div align="right">**July 2021 − Present**</div>
Masters in CSE - 3.75/4 <div align="right">*Dhaka, Bangladesh*</div>

Mentionable Courses: Network Security, Programming languages and Systems, Advanced Digital Image Processing, Neural networks, Bioinformatics algorithms
Thesis: **Handwritten characters recognition and dataset for the Chakma language**

Bangladesh University of Engineering and Technology (BUET) <div align="right">**February 2016 − February 2021**</div>
Bachelor in CSE - 3.30/4 <div align="right">*Dhaka, Bangladesh*</div>

Mentionable Courses: Data Structures and Algorithms I & II, Operating System, Computer Security, High-Performance Database systems, Artificial Intelligence, Pattern Recognition, Machine Learning
Thesis: Study of Spanning Trees with Maximum Number of Leaves

RESEARCH EXPERIENCE

Handwritten characters recognition and dataset for the Chakma language <div align="right">**March 2020–Present**</div>

- The chakma language is an endangered language declared by UNESCO
- Provided a novel multipurpose dataset and working on a GAN based baseline model. Also provided a linguistic analysis, which revealed homoglyph characters and connectivity between consonants forming second-order conjuncts
- Collected $113,834$ handwritten characters and obtained 98% macro averaged accuracy with state-of-the-art CNN models on test data, whereas the exact match accuracy was 94%

Multilingual machine translation for Chakma language <div align="right">**August 2021 − Present**</div>

- Provided a novel monolingual and bilingual corpus dataset consisting of $13,000$ sentences. Collected data from old documents and crowd-sourcing.
- Experimented with NMT, SMT models, and various vanilla MT models. Due to low resources, translation did not work well. Pretraind BanglaT5 with transliteration significantly boosted the result

LANGUAGES

- Bengali (Native) 5/5
- English (Working proficiency) 4.5/5

EXTRACURRICULAR ACTIVITIES AND HOBBY

Problem-solving, Video Games, Traveling, Photography, Music, Movies