# SAAD BIN KADER

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| **CONTACT INFORMATION** | **email**: saadbinkader@gmail.com <br> **linkedIn**: www.linkedin.com/in/saadbinkader <br> **website**: www.saadbinkader.com |
| **RESEARCH INTERESTS** | Software Engineering: Reliability, Scalability, and Maintainability, Software Architecture and Design Patterns |

**RESEARCH INTERESTS**

Software Engineering: Reliability, Scalability, and Maintainability, Software Architecture and Design Patterns

**EDUCATION**

**B.Sc. in Computer Science and Engineering, University of Dhaka, Bangladesh**
2009 - 2013
CGPA: 3.53/4 (3.59 in last 2 years)

**Higher Secondary School Certificate, Notre Dame College, Dhaka, Bangladesh**
2006 - 2008
GPA: 5.00/5.00

**Secondary School Certificate, Ideal School and College, Dhaka, Bangladesh**
2004 - 2006
GPA: 5.00/5.00

**RESEARCH EXPERIENCE**

**Runtime Dynamic Data Validation Using Mathematical Expression**
A brief explanation of runtime dynamic data validation Using Mathematical Expression with an implementation using a Java-based library(mXparser).

**An overview of HTML to PDF Generation in Java**
A brief comparison summary between Java-based HTML to PDF generation libraries and highlights their primary purpose.

**Towards Semantic Web**
An approach to train a semantic Knowledge Graph model from utilizing the search engines for the Bengali language was submitted as the final research project of the Undergraduate Program.

**WORK EXPERIENCE**

**Senior Software Engineer, Therap Services**
Jul 2018 – Present

- [Framework Enhancement] Coherence Cache Renewer: a token-based coherence cache renewer to sync the cached resources expiry with client HTTP session. Tech-stack: jQuery, Spring MVC

- [Framework Enhancement] Emoji and Color Code Support for XML Data Difference Generator: Tech-stack: XSLT, Java

- [Redesign] Time Tracking: a time interval-based data collection and reporting tool which records nearly three million records a month. Contribution Impact: tailor-made SQL powered by Spring JdbcTemplate with custom version controlling brought about roughly four times improvement over previous Hibernate-based EntityManager. 100% batch actions have been converted to one of single SQL or JdbcTemplate batch execution from previous Hibernate generated single SQL per action. Tech-stack: JdbcTemplate, Hibernate, Spring MVC, JSP, jQuery

- [Tech-stack Improvement] eCHAT: the Comprehensive Health Assessment Tool (eCHAT) is an in-depth online health assessment and reporting tool. Contribution Impact: outdated HibernateTemplate has been replaced with Hibernate-based JPA provider. Tech-stack: Hibernate, Spring MVC

**Software Engineer II, Therap Services**
Oct 2016 – Jul 2018

- [Start Up] Scheduling/EVV: a module to build staff schedules (especially for in-home and community-based services), track staff hours, monitor individual service allocation, and meet the upcoming federal EVV requirements. Contribution Impact: this fastest-growing high data volume module with features like application-layer atomicity and optimistic locking(achieved using distributed in-memory data grid across application clusters) is expected to meet federal EVV requirements. Tech-stack: Hibernate, JdbcTemplate, Spring MVC, DHTMLX, Google Maps

- [Framework Enhancement] GenericFormatter: a spring configuration-based generic entity formatter. Contribution

Impact: removed code duplicity for primary key-based entity formatters from one-to-one to one-to-all.Tech-stack: Spring

### Software Engineer, Therap Services
Oct 2015 – Oct 2016

- [Redesign] Individual Support Plan Agenda: an agenda documentation tool that is later used for plan generation. Contribution Impact: deprecated Seam framework has been replaced by Spring MVC. Tech-stack: Hibernate, Spring MVC

- [Redesign] General Event Reports: an incident reporting tool that can include injury, medication error, restraint death, or the other categories along with witness reports. Tech-stack: Hibernate, Spring MVC

- [Redesign] Health Reports: a visual report for an individual's health information. Contribution Impact: responsive graphs and server load cut down were achieved by replacing the existing server-side Java-based graph generator with client-side jQuery Flot. Tech-stack: Hibernate, Spring MVC, jQuery Flot

- [Framework Enhancement] pre-wrap JSP tag: a JSP tag to override default HTML whitespace formatting to preserve source formatting. Contribution Impact: ensured source formatting perseverance regardless of requesting browser type.

### Associate Software Engineer, Therap Services
Jun 2014 – Oct 2015

- [Enhancement] Report Library: a tool to generate exportable excel reports from relational databases. Contribution Impact: the developed expression-based language upon evaluation ensures Data integrity and security. Tech-stack: Hibernate, Spring MVC, JEval, jQuery

- [Start Up] Employment History: a tool to assist an individual with preparing, landing, and maintaining a job with additional features like Job Bank development. Contribution Impact: replaced previous supported employment tracking model. Tech-stack: Hibernate, Spring MVC, jQuery

### Junior Software Engineer, Therap Services
Jun 2013 – May 2014

- [Redesign] Custom Fields: a module for providing pluggable fields of desired types to an existing form. Tech-stack: Hibernate, Spring MVC

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| **TALKS/ PRESENTATIONS** | Making Interviews Work, Green University of Bangladesh, Aug 2020 |
| | Campus Recruitment Opening Session, Shahjalal University of Science and Technology, Apr 2016 |
| | Campus Recruitment Opening Session, University of Dhaka, Mar 2016 |
| **OTHER EXPERIENCE** | Development team lead, interviewer, tech-stack trainer, source coder reviewer, competitive programming contestant |
| **REFERENCES** | **Hasnain Heickal** Assistant Professor, Department of Computer Science and Engineering, University of Dhaka Ph.D. Student, University of Massachusetts Amherst **email**: hasnain@cse.du.ac.bd |
| | **Mahmood Jasim** Lecturer, Department of Computer Science and Engineering, University of Dhaka Ph.D. Student, University of Massachusetts Amherst **email**: mjasim@cs.umass.edu |