

Ashraful Islam

ashrafulrafi@gmail.com
(929) 421-8226
Birmingham, AL, USA

github.com/ashraful-islam-rafi
linkedin.com/in/ashraful-islam-rafi
Python, Java, C++, PHP, JavaScript, Racket

SUMMARY

Computer Science graduate student at the University of Alabama at Birmingham (UAB) with over 2 years of academic research experience and more than 7 years of software development experience.

EDUCATION

- **University of Alabama at Birmingham** Birmingham, USA
Master of Science in Computer Science Jan 2022 - Dec 2024
- **Leading University** Sylhet, Bangladesh
Bachelor of Science in Computer Science and Engineering Aug 2009 - Aug 2013

EXPERIENCE

- **University of Alabama at Birmingham** Birmingham, USA
Graduate Research Assistant Jan 2022 - Aug 2024
 - Brouhaha (Prototype Research Compiler): Led a team of three students in developing Brouhaha, which outperforms other compilers like Chicken and Guile, achieving 3x better running times for certain benchmarks. This performance primarily results from performing control flow analysis (k-CFA) to detect function inlining opportunities. Github
 - Compiler: Wrote a functional compiler in Racket that translates minimal **Racket** code into **C++**. Github
- **Bangla Search Engine (Pipilika)** Sylhet, Bangladesh
Software Engineer Aug 2017 - Mar 2021
 - Enhanced keyword-based search relevancy by 35% through redesigning the Apache Solr schema, extracting Bangla Unicode data, and implementing Solr's dismax query parser.
 - Developed a generic approach using Scrapy and Jsoup to crawl, parse, and index data from over 40,000 websites, boosting indexed data by 18% and enhancing search abilities.
 - Wrote RESTful API using Spring Boot to provide domain-specific time series data for Solr projects, improving reporting capabilities and reducing the debugging time by 20%.
 - Implemented TIG (Telegraf, InfluxDB, Grafana) stack on Pipilika's server for real-time infrastructure monitoring, reducing downtime through proactive issue detection.
- **Southeast University** Dhaka, Bangladesh
Programmer Apr 2015 - Aug 2017
 - Led the IT department for over 3 months, overseeing all operations and ensuring effective technology solutions across the organization.
 - Introduced an Online Admission System using PHP, MySQL, and Bootstrap3, contributing to 25% of total admissions.
 - Improved the University Support System software report generation time by 30% by redesigning the MySQL schema.
 - Supervised a vendor company in developing Human Resources Management System software.
- **IT Lab Solutions Ltd** Sylhet, Bangladesh
Software Developer Sep 2013 - Dec 2014
 - Developed web-based shop management software for over 5 businesses using CodeIgniter, MySQL, and Bootstrap3.

SKILLS

- **Languages:** Python, Java, C++, PHP, JavaScript, Racket
- **Databases/Frameworks/Technologies:** MySQL, MongoDB, Apache Solr, Spring Boot, Bootstrap3, Codeigniter, RESTful API, Jsoup, Scrapy, AJAX, HTML5, CSS3, WordPress
- **Others:** Git, Docker, AWS, SDLC, MVC, Agile Methodologies, Scrum, Jira, Unit Testing

EXTRACURRICULAR / ACTIVITIES

- Served as a Judge for the Summer 2023 Undergraduate Research Expo at UAB, evaluating student research projects.
- Acted as Treasurer for the Bangladesh Student Association at UAB (2022-23), overseeing finances and budgeting.