

Ashraful Islam

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SUMMARY

Computer Science graduate student with 7+ years of software development and 2+ years of academic research experience.

EDUCATION

- University of Alabama at Birmingham** Birmingham, USA
• Master of Science in Computer Science, GPA: 3.80/4.00 Jan 2022 - Dec 2024
- Leading University** Sylhet, Bangladesh
• Bachelor of Science in Computer Science and Engineering, GPA: 3.30/4.00 Aug 2009 - Aug 2013

SKILLS

- **Languages:** Python, Java, C++, PHP, JavaScript, Racket
- **Databases & Frameworks:** MySQL, MongoDB, Apache Solr, Spring Boot, CodeIgniter, WordPress
- **Technologies:** RESTful API, ETL/ELT, Web Scraping/Crawling (Scrapy, Jsoup), AJAX, HTML5, CSS3, Bootstrap3
- **Tools & Platforms:** Git, Docker, AWS, Google Cloud, CI/CD, Jira, Maven
- **Methodologies:** SDLC, MVC, Agile, Scrum, Unit Testing

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 redesign of Apache Solr schema and advanced query boosting techniques
 - Developed scalable crawlers and parsers using Scrapy and Jsoup to extract data from over 40,000 websites, boosting indexed data by 18% and enhancing search capabilities.
 - Wrote RESTful API using Spring Boot to provide domain-specific time series data, improving reporting capabilities and reducing the debugging time by 20%.
 - Implemented TIG (Telegraf, InfluxDB, Grafana) stack for real-time infrastructure monitoring, reducing downtime by 15% 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.
 - Developed an Online Admission System using PHP, MySQL, and Bootstrap3, driving 25% of total admissions.
 - Reduced University Support System software report generation time by 30% through MySQL schema redesign.
 - Supervised vendor company in developing Human Resources Management System (HRMS) 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.

EXTRACURRICULAR / ACTIVITIES

- Judge: UAB Summer Undergraduate Research Expo, 2023
- Treasurer: Bangladesh Student Association (BSA), 2022-23