# PRASHANTA SAHA

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Mailing Address: 805 Peter Koch Tower, Bozeman, MT - 59715

**EDUCATION** 

**Doctor of Philosophy in Computer Science, Fall 2021(expected)** 

Montana State University (MSU), Bozeman, MT

Master of Science in Computer Science, Fall 2020 CGPA 3.49

Montana State University (MSU), Bozeman, MT

Bachelor of Science in Computer Science and Engineering, 2012 CGPA 3.46

Rajshahi University of Engineering and Technology, Rajshahi, Bangladesh

### **SKILLS**

Programming/Scripting Languages: Java, php, Javascript, Html, CSS, SQL, Powerbuilder, React Native, Python, R, C

Frameworks and tools: MySQL, MSSQL, SQLAnywhere, Realm, Eclipse, Microstrategy, Selenium, Git, Randoop, RStudio; Operating Systems: Windows, Linux, Unix

#### **WORK EXPERIENCE**

Teaching Assistant, Gianforte School of Computing, MSU, Bozeman, MT, Jan 2019 - Present

• Course Name: Computer Systems (Fall 2020), Basic Data Structure (Spring 2020), Software Engineering Applications (Spring 2019)

Research Assistant, Software Testing Lab, MSU, Bozeman, MT, Jan, 2016 – Dec, 2018

 Research area: Software Quality Assurance, Automated Software Testing, Test Case Generation and Minimization

Software Engineer, IQVIA (former IMSHealth), Dhaka, Bangladesh, Feb, 2013 - Dec, 2015

• Developed new features and enhanced existing features of internal project called PADDS Development (Database Viewer, Service Tool, and Data Warehouse Designer tools) and various web dashboards. (Powerbuilder, php)

#### **SOFTWARE PROJECTS**

## METTester (NSF Funded) Software Testing Lab, MSU, Bozeman, MT

Developed a software testing tool called METTester for testing scientific software using Metamorphic testing technique (Java, Python). This tool can generate random or coverage-based test cases for a class and then identify Metamorphic Relations (MRs) for that class. Those MRs are prioritized based on their fault detection effectiveness. Finally, a test report has been generated which contains the pass/fail results of that class using Metamorphic testing. link

## USMP (FHWA Funded) Network Lab & Software Testing Lab, MSU, Bozeman, MT

Developed an unstable slope management program (USMP) for various land and transportation management groups to manage their unstable rock and soil slopes (php, React Native). This tool can be used either online or offline. There is a web-based tool as well as mobile application (Android and ios) version of this tool. This application is now live and currently being used by FHWA. WebsiteLink, play store, app store