Nasif Imtiaz

Researcher,
Software Engineer

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Education

PhD, Computer Science | North Carolina State University (NCSU) | Aug. 2017 - Present | CGPA: 3.58/4.00

B.Sc., Computer Science and Engineering
Bangladesh University of Engineering and Technology (BUET) | 2017 | CGPA: 3.64/4.00

Skills

Languages: Python, Java, SQL, R, C/C++, Unix Shell, Latex, HTML, Azure Kusto

Tools: Git, Pandas, NumPy, SciPy, Matplotlib, Scikit-learn, Selenium, MySQL, Static analysis, Security testing

Research Methods: Qualitative & Quantitative analysis, Open coding, Interviews & Survey, Exploratory data analysis, Statistical models, Hypothesis testing

Data Science: Feature selection, Principal component analysis, Missing data & imputation, Supervised models

Awards

Best poster at HotSoS'19
NCSU CoE Fellowship for 2017-18
Winner at HUAWEI Seeds for the Future'16

Experience

Aug'17 - Present	**NC State University** Graduate Research Assistant	Raleigh, NC

- Research area includes Software Engineering, Software Security, Human-Computer Interaction

May'19 - Aug'19	**Microsoft Research** Research Intern	Redmond, WA

- Studied the nature of plaintext credentials in source code through developer interview and statistical modeling of *CredScan* telemetry data

Research Projects

Aug'19 - Present	Prioritizing Vulnerable Dependencies	Raleigh, NC

- Studying vulnerable dependency detection tools to identify current gaps

Sep'18 - May'19	Developer Adoption of Security Tools	Raleigh, NC

- Analyzed the fix rate and fix complexity for *Coverity* alerts from historical data
- Studied *StackOverflow* posts to categorize developer challenges in responding static analysis alerts
- Published two conference papers

Aug' 17 - Aug'18	Gender Bias in Open Source	Raleigh, NC

- Analyzed *GitHub* data and tested several hypotheses derived from social studies to investigate effects of gender bias in open source software development
- Mentored two *Research Experience for Undergraduate* (REU) students
- Published one workshop and one conference paper

Selected Publications

ISSRE'19	How Do Developers Act on Static Analysis Alerts? An Empirical Study of Coverity Usage <u>Nasif Imtiaz</u>, Brendan Murphy, Laurie Williams In Proceedings of the 30th International Symposium on Software Reliability Engineering; Berlin, Germany (*acceptance rate: 31%*)
ICSE'19	Investigating the Effects of Gender Bias on GitHub <u>Nasif Imtiaz</u>, Justin Middleton, Joymallya Chakrabarty, Neil Robson, Gina Bai, Emerson Murphy-Hill In Proceedings of the 41st ACM/IEEE International Conference on Software Engineering; Montreal, Quebec (*acceptance rate: 21%*)

Academic Projects

Fall'17	Task Tracker Bot Connects *Slack* and *Trello* for task management	GitHub
Fall'18	Prototxt2TensorFlow Converts neural networks defined in Prototxt format to equivalent TensorFlow code in Python	GitHub