# Samantha Syeda Khairunnesa

**OBJECTIVE**   Obtain a full-time faculty position and pursue potential research in the area of software engineering, specification languages, programming languages, and machine learning.

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**BRIEF BIO**   I am currently working as a Ph.D. candidate with the Department of Computer Science, Iowa State University, IA, USA. I am working in the project title, Boa: Mining Ultra-Large-Scale Software Repositories under Prof. Hridesh Rajan.

In recognition of my research performance, I have received the following: Research Excellence Award (2020), SPLASH scholarship (2017), and Professional Development Grants (2017).

I have obtained her M.Sc. in Computer Science from Iowa State University, IA, USA in 2017 with CGPA 3.75 (Out of 4.0). I completed her B.Sc. Engineering in Computer Science from Khulna University of Engineering and Technology (KUET), Bangladesh in 2011 with Cumulative GPA: 3.62 (Out of 4.0) and placed fifth in the combined merit position.

During my Ph.D. education, I have served as a graduate student instructor. My responsibility included teaching an advanced undergraduate course independently and supervising TAs. As a teaching assistant during my early Ph.D. years, I have conducted recitation of computer science core courses among other responsibilities. I received the Teaching Excellence Award (2019) in recognition.

**EDUCATION**
Ph.D., Computer Science, Iowa State University, USA      Apr 2021 (expected)
M.Sc., Computer Science, Iowa State University, USA      Nov 2017
B.Sc., Computer Science, KUET, Bangladesh      Jul 2011

**PUBLICATION**

| THESIS |
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**Samantha S. Khairunnesa**, *Exploiting Implicit Beliefs to Resolve Sparse Usage Problem in Usage-Based Specification Mining*, MS Thesis, CS, Iowa State University, 2017.

**Samantha S. Khairunnesa**, Nusrat Nur Afrose Shoma, Scheduling Services in Vehicular Ad Hoc Networks (VANETs), B.Sc. Thesis, CSE, Khulna University of Engineering & Technology, 2011.

| CONFERENCE |
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**[OOPSLA 2017] Samantha S. Khairunnesa**, Hoan A. Nguyen, Tien N. Nguyen and Hridesh Rajan, "Exploiting Implicit Beliefs to Resolve Sparse Usage Problem in

Usage-Based Specification Mining", Proc. ACM Program. Lang. 1, OOPSLA, Article 83 (October 2017). **|Link|**

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### WORKSHOP
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**[WASPI 2018] Samantha S. Khairunnesa**, Hoan A. Nguyen, and Hridesh Rajan, "On the Significance of Contract-Based Typestate Specification", International Workshop on Automated Specification Inference (Nov 2018). **|Link|**

**APPOINTMENTS**

**Graduate Student Instructor**
Dept. of Computer Science, ISU
- Principles of Programming Languages (COMS 342), Spring 2020, Fall 2020, Spring 2021 (appointed)

**Research Assistant** (2016 - 2019)
Laboratory for Software Design, ISU

**Teaching Assistant**
Dept. of Computer Science, ISU
- Advanced Programming Techniques (COMS 229), Fall 2014
- Principles of Programming Languages (COMS 342), Spring 2015 - Spring 2016, Fall 2019
- Introduction to Spreadsheets and Databases (COMS 113), Fall 2015

**TALKS**

"Exploiting Implicit Beliefs to Resolve Sparse Usage Problem in Usage-Based Specification Mining" at the Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA), Vancouver, Canada, October 25-27, 2017.

"Exploiting Implicit Beliefs to Resolve Sparse Usage Problem in Usage-Based Specification Mining" at the 9th Midwest Verification Day, Manhattan, Kansas State University, United States, October 6-7, 2017.

"On the Significance of Contract-Based Typestate Specification" at the 1st International Workshop on Automated Specification Inference, Lake Buena Vista, Florida, United States, November 9, 2018.

**AWARDS**

- Research Excellence Award, ISU 2020
- Teaching Excellence Award, ISU 2019
- PLMW @ SPLASH Scholarship 2017
- Professional Development Grants, ISU 2017

**EXTERNAL SERVICES**

Reviewer, Transactions on Software Engineering (TSE)
Reviewer, Transactions on Embedded Computing Systems (TECS)
Publicity Chair, The Midwest Big Data Summer School 2018.
Student Volunteer Co-chair, Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA) 2020.
PC Member, European Conference on Object-Oriented Programming (ECOOP), Doctoral Symposium Track 2021.