



# JOYDEEP MITRA

1858 CLAFLIN ROAD, MANHATTAN KS 66502 | 7857706217 |  
joydeep@ksu.edu

---

## SUMMARY

I am a PHD student at Kansas State University working with Dr. Venkatesh Prasad Ranganath and Dr. Torben Amtoft. My current research is on secure software development with an emphasis on mobile apps. Consequently, my research intersects the fields of Software Security, Programming Languages and Software Verification. Consequently, I am interested in all three.

---

## EXPERIENCE

- Research Assistant at Kansas State University 2016 - Present (less than a year) Working on a methodology to design and implement secure Android apps.
- Teaching Assistant(TA) at Kansas State University August 2014 - August 2016 (2 years 1 month)
  - co-taught an undergraduate level course in C
  - TA for Graduate level course in Introduction to Information security
  - TA for under-graduate course on software testing
  - TA for under-graduate course on Logical Foundations of Programming.
- Programmer Analyst at Cognizant Technology Solutions July 2010 - June 2014 (4 years) I was a developer at Cognizant. I helped develop web applications for Insurance companies. My work mainly involved analyzing client requirements, developing, enhancing and deploying applications based on those requirements.
- Intern at Tata Consultancy Services June 2008 - September 2008 (4 months)

---

## EDUCATION

- Kansas State University (2014 – Present)
  - PHD in Computer Science (3.875/4)
  - Selected Courses:
    - Algorithms(A)
    - Introduction to Information Security(A)
    - Readings in Software Verification (A)
    - Translator Design (A)
    - Programming Languages (A)
    - Software Specification (B)

- West Bengal University of Technology, India (2006-2010)
  - Bachelor of Technology in Information Technology (8/10)

---

## AWARDS AND ACKNOWLEDGEMENTS

---

- Kansas State Engineering Fellowship Award by Kansas State university for pursuing a PHD in Computer Science.
- Graduate Admission Test For Engineering in Computer Science by IIT Bombay
  - Among the top 3% of all test takers throughout the country.

---

## RECENT PROJECTS

---

- A study of vulnerabilities in Android apps (ongoing)
- A Domain Specific Language to help design secure mobile apps (ongoing)
- An Android app for veterinarians called Bull Soundness Evaluation (as appears in Google Play)

---

## SKILLS

---

- **Programing Languages:**
  - Object Oriented: Java, Python
  - Imperative: C
  - Functional Programming: SML, Racket, Haskell
  - Logic programming: Prolog
  - Web: HTML, JavaScript, CSS
  - Database: PL/SQL
- **Testing Frameworks:** Junit, Pytest, Mockito
- **Source Control:** Git
- **Software Specification and modeling:** Alloy, TLA+
- **Operating Systems:** Android, Linux, Mac OSX, Windows.
- **Other but important skills:** Compiler construction, Android app development, Software Design and methodology, software verification tools, bash scripting.

## Contact

- Email
  - [joymitro1989@gmail.com](mailto:joymitro1989@gmail.com) (Personal)
  - [joydeep@ksu.edu](mailto:joydeep@ksu.edu) (Professional)
- Website
  - <https://joymitra.github.io/>

---

## REFERENCES

---

- Dr. Venkatesh Prasad Ranganath
  - [rvprasad@ksu.edu](mailto:rvprasad@ksu.edu)
- Dr. Torben Amtoft
  - [tamttoft@ksu.edu](mailto:tamttoft@ksu.edu)