Oyendrila Dobe

Research and development intern

Quick learner, enthusiastic grad student looking for internships to contribute and learn.

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EDUCATION

PhD in Computer Science (GPA: 3.6/4.0)

Iowa State University

08/2018 – Present *Ames, United states*

Courses

- Program Analysis
- Information flow security
- Applied Formal Methods
- Artificial Intelligence

Bachelor of technology in Computer Science and Engineering (GPA: 8.91/10.0)

St. Thomas' College of Engg & Technology

08/2013 – 06/2017 *Kolkata, India*

WORK EXPERIENCE

Research Assistant

Iowa State University- Program analysis group

04/2019 – 08/2019 *Ames, United States*

Worked under Dr. Wei Le

Achievements/Tasks

- Built case studies to prove applicability of demand-driven algorithm to generate minimum size executable of c++/c codes, from given program lines of large projects.
- Wrote python scripts to automate testing across docker containers and VM.

Teaching Assistant

Iowa State University

08/2018 – 05/2019 *Ames, United States*

Courses taught: Object Oriented programming and Data Structures

Achievements/Tasks

- Help conduct recitations for Data structures to clarify students' doubts.
- Generated Unit tests and assignments besides grading them with feedback.

System Engineer

Infosys Limited

09/2017 – 05/2018 *Karnataka, India*

Achievements/Tasks

- Underwent rigorous training of object-oriented programming in python, and SAP ABAP.
- Solely handled implementation of leave system for new subsidiary of the company using ABAP, directly under team leader.

LANGUAGES & TOOLS

Java | Python | MatLab | MySQL | C/C++ | Shell Script | Git | Docker

RESEARCH PROJECTS

Securing information flow (08/2019 – Present)

- Implementing algorithm to generate safe parameter space to ensure secure information flow in probabilistic DTMCs, using python, storm, prophesy and z3.
- Researching to find algorithm to automatically generate test cases and coverage metrics to prove secure information flow in hyperproperties.

Classification and detection of brain tumors from MRI scan images (06/2015 – 09/2017)

- Developed algorithms to detect tumors with 3.6% efficiency improvement (2016) over previous methods and devised another optimized algorithm (2017) which increased it further by 0.9%.
- Developed an algorithm to detect and extract tumor affected region with high effectiveness (2017).

ACHIEVEMENTS

Grace Hopper Celebration scholar 2019

Secured a highly competitive scholarship to attend GHC 2019

Won medals at Badminton opens in Nebraska and Minnesota

Secured gold and silver respectively in Tier-2 at the above competitions

Captain at of sports team in college

Have been captain of departmental badminton team, women's cricket team, and women's soccer team in my undergraduate college

Core committee member for annual TechFest for college

Was responsible for communicating with sponsors and was responsible for uninterrupted run of events.