SASWATA PAUL

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EDUCATION

Rensselaer Polytechnic Institute, Troy, NY, USA *December 2018*
M.S. in Computer Science
GPA: 3.81/4

National Institute of Technology, Agartala, Tripura, India *May 2015*
B.Tech. in Computer Science & Engineering
GPA: 8.01/10

EXPERIENCE

Rensselaer Polytechnic Institute May 2017 - Present
Graduate Research Assistant *Troy, NY*

· Designed a formally verified conflict-aware flight planning algorithm.
· Designed a data-driven model to compute high-fidelity emergency aircraft trajectories.
· Designed an approach for generating wind-aware emergency aircraft trajectories.

Rensselaer Polytechnic Institute August 2016 - May 2017
Graduate Teaching Assistant *Troy, NY*

· Conducted practical labs, held office hours, and graded papers for courses like Computer Science I (Fall 2016) and Principles of Software (Spring 2017).

Society for Natural Language Technology & Research May 2014 - July 2014
Summer Intern *Kolkata, India*

· Designed an Android application for generating the shortest/cheapest bus route from Point A to Point B in Kolkata.

PUBLICATIONS

· S. Paul, Stacy Patterson, and C. A. Varela. "Conflict-Aware Flight Planning for Avoiding Near Mid-Air Collisions", In *Proc. of the 38th AIAA/IEEE Digit. Avionics Syst. Conf.*, San Diego, CA, USA, Sep. 2019.

· S. Paul, "Emergency Trajectory Planning for Fixed-Wing Aircraft", Master's Thesis, Rensselaer Polytechnic Institute, Troy, NY, USA, Dec. 2018.

· S. Paul, F. Hole, A. Zytek, and C. A. Varela. "Wind-aware trajectory planning for fixed-wing aircraft in loss of thrust emergencies", In *Proc. of the 37th AIAA/IEEE Digit. Avionics Syst. Conf.*, London, England, Sep. 2018.

· S. Paul, F. Hole, A. Zytek, and C. A. Varela. "Flight trajectory planning for fixed-wing aircraft in loss of thrust emergencies", In *Dyn. Data-Driven App. Syst.*, Cambridge, MA, Aug. 2017.

POSTERS

· S. Paul, F. Hole, A. Zytek, and C. A. Varela. "LOT Emergency Trajectory Generation for Fixed-Wing Aircraft", Rensselaer Polytechnic Institute, Nov. 2018.

SKILLS

Computer Languages : over 5000 lines - C, JAVA, Python; over 1000 lines - C++, PHP, PROLOG, SALSA, R ; familiar with: JavaScript, HTML, CSS, ErLang, Pict, Haskell, Oz, MYSQL
Formal Verification : Athena, TLA+, TLAPS
Other Tools : TLA+ Toolbox, Athena Proof Assistant, LaTeX, SVN, Github, MS Office

ACADEMIC ACTIVITIES

· Reviewer for UCC 2017, IEEE BigData 2017, AAMAS 2019, and IEEE Cluster 2019.

RELEVANT GRADUATE COURSEWORK

Systems : Programming Languages, Distributed Computing over the Internet, Operating Systems
Theory : Design & Analysis of Algorithms, Distributed Systems & Algorithms, Software verification
Data : Machine Learning from Data, Xinformatics, Data Analytics, Data Science

ACADEMIC HONORS AND DISTINCTIONS

· Nominated for the *Best Student Paper Award* at DASC 2019, San Diego, CA.

· Topped the Computer Science & Engineering Department of National Institute of Technology Agartala in 8th semester (May 2015) with a Semester Grade Point Average (SGPA) of 9.36.

· Secured First position in inter-college coding competition in NIT Agartala in 2013.

· Secured second position in Holy Cross School Agartala in ISC 2011 with 89.7%.

· Secured fourth position in Holy Cross School Agartala in ICSE 2009 with 93.8%.

REFERENCES

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William Thompson
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