# Abdus Salam Azad

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| INTERESTS | Program Synthesis, Big Code, AI driven Software Engineering, Machine Learning & Interpretability, Artificial Intelligence. |

EDUCATION

**University of California, Berkeley**
Ph.D. in Computer Science                                   August 2018 - Present

**Bangladesh University of Engineering and Technology (BUET)**
M. Sc. in Computer Science and Engineering          October 2014 - January 2017
Thesis: A Heuristic Initialized Stochastic Memetic Algorithm for MDPVRP
with Interdependent Depot Operations
Supervisor: Md. Monirul Islam
CGPA: 4.00/4.00

**Bangladesh University of Engineering and Technology (BUET)**
B. Sc. in Computer Science and Engineering            March 2009 - June 2014
Thesis: Diversity Guided Unified Evolutionary Framework for Multi Depot Periodic
Vehicle Routing Problem
Supervisor: Md. Monirul Islam
**Winner:** Annual Undergraduate Thesis Poster Competition, CSE, BUET
CGPA: 3.95/4.00 (**Major CGPA: 3.996**)
Rank: **3$^{rd}$** in a graduating class of 153 students

EXPERIENCE

**Bangladesh University of Engineering and Technology**
Lecturer, Dept. of Comp. Science & Engineering     August 2014 - Present(On Leave)
Conducted undergraduate courses
Provided research and consultation services to government agencies and local industry
Mentored undergraduate students, who got into top MS and Ph.D. programs

CURRENT PROJECTS

**RayWiz: Parallelization Recommendation for Ray Programs**
The goal of the project is to build a tool that will help developers to parallelize Python programs using the Ray API. The tool will take a sequential program written in Python using a machine-learning library (e.g. Scikit-learn) and analyze the program both dynamically and statically to find patterns of logical parallelism. It will then recommend effective ways of transforming the program using Ray API. The tool is a smart assistant which will point out possible opportunities of parallelization which an expert programmer might recommend, however it may not guarantee the correctness of the transformation. The relaxation of the correctness requirement enables to come up with powerful recommendations that worked for other programmers in the past.
Supervisor: Koushik Sen, Costin Iancu, Ion Stoica

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| PUBLICATIONS | **Abdus Salam Azad**, Md. Monirul Islam, and Saikat Chakroborty. **A Heuristic Initialized Stochastic Memetic Algorithm for MDPVRP with Interdependent Depot Operations.** IEEE Transactions on Cybernetics, January, 2017. [Impact Factor: 8.803] |
| | **Abdus Salam Azad**, Md.Kamrul Hasan, M.Arif Imtiazur Rahman, Md.Mustafizur Rahman, and Nashid Shahriar. **Exploring the behavior and changing trends of rainfall and temperature using statistical computing techniques.** In Tanvir Islam, Prashant K. Srivastava, Manika Gupta, Xuan Zhu, and Saumitra Mukherjee, editors, Computational Intelligence Techniques in Earth and Environmental Sciences, pages 53-78. Springer Netherlands, 2014. |
| SCHOLARSHIPS, AWARDS, AND GRANTS | Winner, 1st Undergraduate Thesis Poster Presentation, 2014, CSE, BUET. |
| | Travel Grant, NUS School of Computing Summer School, 2017, National University of Singapore |
| | Winner, Android Application Development Contest, Samsung R&D, Bangladesh, 2013 |
| | Dean's Honor List, BUET |
| | University Merit Scholarship, BUET |

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| SYNERGISTIC ACTIVITIES | Reviewer | IEEE Transactions on Cybernetics |
| | Organizing Committee Member | WALCOM 2015, NSysS 2015, 2016, 2017 |

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| COMMUNITY SERVICES | Founding Member | |
| | Information and Communication Secretary | September 2011 – November 2013 |
| | Engineering Students Association of Bangladesh (ESAB) | |