Suddhasvatta Das

Email: sdas76@asu.edu | Portfolio | LinkedIn | Google Scholar

Summary

Dynamic educator with 8+ years of experience creating hands-on, inclusive learning for both online and in-person settings. Also a software engineer (4+ years) in FinTech, blending theory and practice through project-based, inquiry-driven methods that engage diverse learners and foster critical thinking. Proven mentor skilled in assessing student performance to refine pedagogy and encourage critical thinking.

Education

Ph.D. in Computer Science (ABD)
Focus - Software Engineering x Agile Project Management & Methods x AI-Operations
Arizona State University Spring 22-AY 25/26
Dissertation: 'Business Value Driven Regression Testing in Agile Environments - An Intelligent Approach'
Advisor: Dr Kevin Gary and Dr James Collofello

M.S. in Computer Science
Arizona State University Fall 2018-Fall 2021
Relevant Coursework: Foundation of Algorithms, Distributed Databases, Data Mining, Software Testing, Software Design, Systems Engineering.

Honors and Awards

- **SUN Award - Teaching Excellence**, Arizona State University Spring 2024
- **SCAI Doctoral Fellowship**, Arizona State University Spring 2022

Research Experience

PhD Researcher, Arizona State University Advisor: Dr Kevin Gary Spring 2022-Present

Dissertation Project: Business Value Driven Regression Test Selection in Agile - An Intelligent Approach

- *Goal 1*: Formalize Regression Testing for Agile Environments. *Methods*: Set theory and proofs. *Outcome*: Regression testing in agile formalized as a build tuple and proved that existing agile regression testing can be represented using my formal definitions.
- *Goal 2*: Develop intelligent regression test selection using business value as the metric. *Methods*: Empirical. Developed optimization algorithm (Genetic Algorithms) to select test cases to test maximum business value within a time-constrained agile setting *Outcome*: Results show my algorithm performs better in business value compared baseline algorithms.

Research and Honors Project Mentor, Arizona State University

Barrett Honors: Braydn Richard and Gali Ani (F24), Leya Ann (F22).
MS Thesis: Aniruddha Mondal (F23), Rishikesh Ananad (S24), Disha Suresh (S22), Shreen Dass (F21).
Junior PhD: Abhijit Chakraborty (S24)

Teaching Experience

Instructor of Record, Arizona State University Fall 2020-Present

SER 517 - Software Factory Capstone, SER 516 - Software Agility (S25); SER 321 - Distributed Systems (S25); FSE 100 - Introduction to Engineering (F25, F24, S24, F23, S23, F22); CSE 360 - Intro to Software Engineering (Su24); CSE 100 - Principles of Programming with C++ (Su24, Su23); SER 316 - Software Enterprise Construct (Su23, Su22); CSE 598 - Advanced Software Analysis & Design (Su22, Su21); CSE 110 - Principles of Programming (S22, F21, S21, F20).

Graduate Teaching Assistant, Arizona State University Fall 2018-Fall 2020

CSE 205 - Object-Oriented Programming (S22); CSE 310 - Data Structures & Algorithms (S21, Su20); SER 316 - Software Enterprise Construct (S20); SER 416 - Software Enterprise Project & Process (S20); CSE 240 - Introduction to Programming Languages (F19); SER 222 - Data Structures & Algorithms

(Su19); SER 402 - Software Engineering Senior Year Capstone Project (S19); SER 322 - Principles of Database Management (S19); SER 421 - Web Apps (F18); SER 232 - System Fundamentals (F18).

Selected Publications (See Google Scholar/Portfolio for Full List)*

⋆ In Review and Accepted Yet to Come on G-Scholar Papers

- Das, S., & Gary, K. (2025). Regression Testing in Agile—A Systematic Mapping Study. *Software*, 4(2), 9. https://doi.org/10.3390/software4020009
- Chakraborty, A., Das, S., & Gary, K. (2024, July). Machine Learning Operations: A Mapping Study. In World Congress in Computer Science, Computer Engineering & Applied Computing (pp. 3-21). Cham: Springer Nature Switzerland.
- Das, S. (2024, May). Agile Regression Testing. In *2024 IEEE Conference on Software Testing, Verification and Validation (ICST)* (pp. 457–459). IEEE.
- Das, S., & Gary, K. A. (2024, June). Developing an Agile Mindset in Software Engineering Students. In *2024 ASEE Annual Conference & Exposition*.

Prior Industry Experience

Software Engineer, Danske IT, April 2018 - July 2018, Bangalore, India

- Developed real-time processing tools for export/import and guarantees in the Trade & Finance domain, cutting turnaround from 5 to 1 business day.
- Contributed to component-level system design, requirements, testing, deployment, and production support.

Software Engineer, Thomson Reuters June 2017 - March 2018, Bangalore, India

- Built scalable systems to onboard up to 500K trading accounts for the BETA platform with high reliability.
- Developed a backup and recovery system from scratch, enabling full recovery within 2–3 hours.
- Transformed and integrated client data from legacy platforms (e.g., NFS, Pershing); supported conversions and pre-prod QA across BETA systems.

Programmer Analyst, Cognizant, Jan 2015 - June 2017, Kolkata, India

Project 1 - PBIS, J. P. Morgan and Chase:

- Developed & integrated module for a *new wire cash* payment source (Workstation)within the existing system to process over 100,000 transactions sent from a different system.
- Developed modules to include validation rules for payments requiring *Credit Gateway and/or OFAC* for collateral & fraud checks, respectively from multiple origins (files, message-queues, etc)
- Developed modules to allow customer account transfer (*ACATS*), in real-time instead of batch processing

Project 2 - FLEX, Bank of New York Mellon:

- Developed & maintained CICS screens, JCLs to process & manage *custodial* accounts; provided L1 support of daily bathes (over 500 jobs)

Technical Skills

Languages & DBs: C, C++, COBOL, Python, JCL, SQL, DB2, MySQL, Postgres

Environments & Tools: z/OS, ChangeMan, Endeavor, Git, DB2-File-Aid & Platinum, Zeke, CICS Explorer, AWS Services.

Learning Management Tools: Canvas, Blackboard, Coursera