

Summary

Researcher & software engineer with 4+ years of experience in enterprise software development for financial institutions, currently pursuing a PhD in Computer Science. Experienced in quantitative & qualitative data analysis & strong collaboration ability within multidisciplinary teams. Eager to bring innovative, data-driven solutions to Amazon's Special Projects team.

Education

Ph.D. in Computer Science GPA : 3.72/4.00

Arizona State University, Spring 2025 (Expected)

Dissertation: An AI-Driven Business Value Based Regression Testing in Agile

Coursework: Algorithms, S/W Design & Architecture, S/W Testing, Large Systems, Data Mining, Data Analysis

Languages, Databases & Tools

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

Tools: ChnageMan, Endeavor, GitHub, DB2-File-Aid & Platinum, Zeke, CICS Explorer

Publications

Published Work:

- Chakraborty, A., Das, S., & Gary, K. (2024). Machine Learning Operations: A Mapping Study. arXiv preprint arXiv:2409.19416. Note: This is the preprint & is accepted at CSCE 2024
- 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.
- Das, S., & Gary, K. (2024). Challenges and Success Factors in Large Scale Agile Transformation—A Systematic Literature Review. In International Conference on Information Technology-New Generations (pp. 405-416). Springer, Cham.
- Kalsi, M. S., Gary, K. A., Gupta, V., Das, S. (2022, May). A Tool for Syntactic Dependency Analysis on the Web Stack. In ITNG 2022 19th International Conference on Information Technology-New Generations (pp. 25-33). Cham: Springer International Publishing.
- Das, S., & Gary, K. (2021). Agile transformation at scale: A tertiary study. In Agile Processes in Software Engineering and Extreme Programming—Workshops: XP 2021 Workshops, Virtual Event, June 14–18, 2021, Revised Selected Papers 22 (pp. 3-11). Springer International Publishing.

Papers in Pipeline:

- Mathematical model for regression testing communicated to SAC-SVT 2025

- Value-Preserving Agile Regression Test Selection communicated to SAC-SVT 2025
- A mapping study on identifying research trends & gaps in regression testing in agile

Industry Experience

Software Engineer, Danske IT

Bangalore, April 2018 - July 2018

- Developed systems for the *Trade and Finance Group* of *Danske Bank* to process incoming transactions in real time of Exports, Imports, and Guarantees from Dot-Net systems, reducing processing time from 5 to 1 business day.

Software Engineer, Thomson Reuters

Bangalore, June 2017 - March 2018

- Developed & optimized simultaneous processing systems (up to 500,000 accounts) to set up new client(s) for the *Thomson Reuters* trading product *BETA*. Worked primarily on developing systems to convert client's data (from other trading platforms, e.g.: NFS, Pershing) appropriately to match BETA's data model and business rules
- Developed a *Data Backup* system from scratch for the entire BETA system to load the entire data back & resume trading within 2-3 hours in case of a system crash.

Programmer Analyst, Cognizant

Kolkata, Jan 2015 - June 2017

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 transactions 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. The modules were designed to handle payments from multiple origins (files, MessageQueues 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 modules to process and manage *custodial* accounts.
 - Provided *production support* for nightly and daily batches (over 500 jobs)

Awards

- SCAI, Doctoral Fellowship, Arizona State University (Spring, 22)

Reference

- Dr.K. Gary, kgary@asu.edu - Ph.D(Co-Chair)
- Dr.J. Collofello, JAMES.COLLOFELLO@asu.edu - Ph.D(Co-Chair)
- Mr. A.Chakraborty (Sr. Sol Architect MongoDB), achakr40@asu.edu - Collaborator