

RAMESH ADHIKARI

PhD Student at Augusta University

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PERSONAL PROFILE

I am a third-year Ph.D. student at the School of Computer and Cyber Sciences, Augusta University, under the guidance of Dr. Costas Busch and supported by NSF grant 2131538. My research focuses on Distributed Algorithms and Blockchain Technology. With four years of industry experience as a Software Engineer, I bring both academic expertise and practical knowledge to my work.

EDUCATION

School of Computer and Cyber Sciences, Augusta University

Ph.D. in Computer and Cyber Sciences

Augusta, Georgia, USA

Aug 2022 - Present

Pokhara University

Masters of Science in Computer Engineering

Kathmandu, Nepal

2018 - 2021

Tribhuvan University

Bachelor of Engineering in Computer Engineering

Kathmandu, Nepal

2013 - 2017

PUBLICATIONS

- [Stable Blockchain Sharding under Adversarial Transaction Generation](#). **Ramesh Adhikari**, Costas Busch, and Dariusz R. Kowalski. The 36th ACM Symposium on Parallelism in Algorithms and Architectures (SPAA 2024)
- [Lockless Blockchain Sharding with Multiversion Control](#). **Ramesh Adhikari**, and Costas Busch. International Colloquium on Structural Information and Communication Complexity (SIROCCO 2023)
- [Performance Evaluation of Convolutional Neural Network Using Synthetic Medical Data Augmentation Generated by GAN](#). **Ramesh Adhikari**, and Suresh Pokharel. International Journal of Image and Graphics
- [Fast Transaction Scheduling in Blockchain Sharding](#). **Ramesh Adhikari**, Costas Busch, and Miroslav Popovic. Preprint:Arxiv
- Stable Blockchain Sharding under Adversarial Transaction Generation. **Ramesh Adhikari**, Costas Busch, and Dariusz R. Kowalski. - **Under Review (VLDB)**
- Transaction Scheduling in Fog-Cloud and Beyond. **Ramesh Adhikari**, Costas Busch, and Pavan Poudel. - **Under Review (IPDPS 2025)** .

RESEARCH TALKS & PRESENTATIONS

Paper Presentation:

- 36th ACM Symposium on Parallelism in Algorithms and Architectures (SPAA 2024) in Nantes, France (Jun 2024).
- 30th International Colloquium on Structural Information and Communication Complexity (SIROCCO), Spain (Jun 2023).

Poster Presentation:

- 3rd annual workshop on Emerging Data Science and Cyber Data at Augusta University, USA (Mar 2023).

Invited Talk:

- Electrical Engineering and Computer Science (EECS) Department at **Syracuse University**, USA (Nov 2024).

ACADEMIC SERVICE

Reviewer Journals

- Invited Reviewer, IEEE Transactions on Green Communications and Networking (2024).
- External Reviewer, Journal of Network and Computer Applications (2024).
- External Reviewer, Blockchain: Research and Applications (2024).
- External Reviewer, IEEE Transactions on Mobile Computing, (2024).
- External Reviewer, IEEE Transactions on Network and Service Management (2022).

Reviewer Conference

- Invited Reviewer, 43rd ACM Symposium on Principles of Distributed Computing (PODC 2024)
- External Reviewer, 7th IEEE International Conference on Blockchain (Blockchain 2024)
- Invited Reviewer, ACM SIGMIS Computers and People Research 2024 (SIGMIS CPR 2024)

- Invited Reviewer, 31st International Colloquium On Structural Information and Communication Complexity (SIROCCO 2024)
- External Reviewer, The 6th IEEE International Conference on Blockchain (Blockchain 2023)

RESEARCH EXPERIENCE

Graduate Research Assistant | Augusta University | Augusta, Georgia, USA Aug 2022 – Present
Working on the distributed algorithm and blockchain technology, mainly on sharding in blockchain to solve the scalability issue, under the supervision of Dr. Costas Busch. Additionally, I am assisting my advisor in writing an NSF grant proposal.

Graduate Student | Nepal College of Information Technology | Kathmandu, Nepal 2020 – 2021
Worked on machine learning and deep learning projects under faculty members to complete master's research.

ADDITIONAL EXPERIENCE

Software Engineer | Sanima Bank | Kathmandu, Nepal May 2019 – Jun 2022

- Developed web applications for commercial banks.
- Integrated API and web services.
- Developed Batch Script and SQL query to automate the process.

Software Engineer | SmartMobe Solutions Pvt. Ltd | Kathmandu, Nepal Feb 2018 - April 2019

- Collaborated with a 30-member team to develop cutting-edge APIs for mobile and web apps.
- Researched new tools and technologies, implementing improvements for efficiency and automation.

ACADEMIC AWARDS, FELLOWSHIPS & SCHOLARSHIPS

- \$1,000 NSF Student Travel Awards from SPAA 2024 conference (June 2024).
- \$1,000 travel award from the Graduate School, Augusta University (April 2024).
- \$650 NSF Student Travel Awards for CANS conference (Nov 2023).
- \$1,000 travel award from the Graduate School, Augusta University (Mar 2023).
- \$100 NSF travel award to attend the 3rd Data Science Workshop at Augusta University (Feb 2023).
- \$340 NSF travel award to attend the (DISC) conference (Oct 2022).
- Star Performance Excellence Award at Sanima Bank Ltd (2021).
- Granted a full scholarship for a Master of Science in Computer Engineering from Pokhara University (2018).

ACHIEVEMENTS AND PARTICIPATION

- Participated in International Conference on Cryptology and Network Security (CANS) (Nov 2023).
- Attended The Southeast Regional Programming Languages Seminar 2023 (Oct 2023).
- Attended the International Symposium on Distributed Computing (DISC) conference (Oct 2022).
- Served as a member of the Kathford FOSS Community at Kathford International College.
- Achieved First Runner-Up in a software competition at Kantipur Engineering College (2015).

SKILLS

Programming languages, Libraries, Tools: Python | Go | C | C++ | JavaScript | PHP | Tensorflow | MySQL | SQL server | Shell Scripting.

Broad Skills: Distributed Algorithm | Distributed System | Blockchains | Algorithmic Analysis | Web Scraping | Database Design | Machine Learning | Cloud Computing | Problem Solving.