

Md Omer Danish

[Email](#) | [Linkedin](#) | [Website](#)

William N. Pennington Engineering Building, Reno, Nevada

RESEARCH INTERESTS

Security and Privacy in AI Agent and Decentralized Systems, Trustworthy ML

EDUCATION

University of Nevada, Reno

Aug' 24 - Present

Ph.D. in Computer Science and Engineering

Bangladesh University of Engineering and Technology

Mar'16 - Feb '21

Bachelors in Computer Science and Engineering

PUBLICATIONS

Pre-Prints

- [IEEE ICDCS 2026, Under Review] Md Omer Danish, Sammy Tesfai, Minmei Wang, Haofan Cai and Xiaoxue Zhang. **CrossZK: Privacy-Preserving Cross-chain Verification For Multi-Enterprises Blockchain.**

PRESENTATION

- [CYBER AI: 2025 UNR Cybersecurity Conference] Md Omer Danish, Xiaoxue Zhang. **ZKSynergy: Interoperable Blockchain Privacy.** (2nd Place Best Poster Award)

RESEARCH WORK

Telecom Customer Churn Rate Prediction with ML

Jun '21 – Dec '21

Techtrioz

- Implemented a model that can predict whether a customer will churn or not based on various attributes like age, gender, demography, payment method, monthly charge, contract duration, etc. with 91.6% accuracy.

Internet Availability, Adoption, and Prediction of Future Demand in Bangladesh

The Bangladesh National ICT Household Survey

- The nationwide survey conducted by the Government of Bangladesh finds only 16.6% are highly aware of online security, 6.1% have no awareness, and 53% overall lack knowledge, with 60% of the uninformed women.

Design of a Decimal to IEEE-754 Converter using Verilog

Oct '18 – Dec '20

Undergraduate Research with Professor Dr. Md. Mostofa Akbar

- A specialized integrated circuit design to convert floating-point decimal numbers into single-precision IEEE-754 binary numbers using Verilog while adhering to RTL rules and standards.

EXPERIENCE

Graduate Research Assistant

Aug '24 – Present

UNRcyber Lab: University of Nevada, Reno

Reno, USA

- **Privacy-Preserving Blockchain Transfers:** Investigating security and privacy challenges in decentralized systems by developing zero-knowledge proof-based mechanisms for multi-enterprise asset transfers.
- **Decentralized LLM Payment Protocols:** Designing privacy-preserving token payment protocols to ensure security, privacy, and fairness between service providers and users within decentralized LLM ecosystems.
- **Alert Wildfire:** Applying machine learning and edge computing to camera-based surveillance systems to enhance real-time detection and response for wildfire events.

Big Data Security Engineer

Techtrioz

Mar '21 - Jul '22

Dhaka, Bangladesh

- **CyberShield** (*PySpark, MLlib*): A big data system processing billions of network records daily to provide an admin dashboard. Detects anomalies and intrusions using machine learning.
- **Data Segregation** (*.Net, C#*): Built a system using the .Net framework to process PDF reports and automate the generation of desired data summaries.
- **TruckShare Plus**: Developed an Android application for collaborative resource utilization in logistics, resulting in a 25% reduction in transportation costs.

TEACHING EXPERIENCE

Graduate Teaching Assistant

CS 446/646 – Principles of Operating Systems

Spring 2026, Fall 2025

TECHNICAL SKILLS

Languages: C/C++, Python, Java, SQL, Verilog, Assembly 8086, CSS

Libraries: Pyspark, NumPy, Pandas, Matplotlib, Seaborn, Tkinter, OpenCV

Database: MySQL, Cassandra, Oracle

Scripting: L^AT_EX, HTML, CSS, Javascript, bash, shell

IDE: IntelliJ IDEA, NetBeans, Eclipse, Visual Studio, VS Code, Code Blocks, AVR studio, PyCharm, Navicat

Tools: Wireshark, Cisco Packet Tracer, SEED Ubuntu, Git, Docker, Jira, Bitbucket

STANDARDIZED TEST SCORES

GRE : 312 (Q-164, V-148, AWA-3)

TOEFL : 100 (L-28, R-25, S-23, W-24)

AWARDS AND ACHIEVEMENTS

- 2nd Place Best Poster Award, 2025 UNR Cybersecurity Conference 2025
- General Scholarship from Bangladesh Government 2016 – 2021
- Talentpool Scholarship from Bangladesh Government 2014 – 2015