Michael Hanif Khan

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Education

University of Chicago at Illinois (UIC) *August 2023 – Current*
Bachelor of Science (B.S.), Computer Science

Coursework: Data Structures, Machine Organization, Computational Theory, Software Design, Systems Programming, Algorithms, Principles of Concurrency

Experience

Systems and Internet Security Lab - SISL @ UIC
Research Assistant - EV Charging Protocol Fuzzer *Fall 2025 - Current*

- Implemented expanded protocol violation detection systems, decreasing time required for manual forensic analysis tenfold.
- Deployed automatic fuzzing instrumentation, simultaneously improving testing in development and production environments.
- Orchestrated dynamically generated Replay and Payload Injection attacks with a fuzzer to evaluate a system's resistance to common cyberattacks.

Research

MSCS Undergraduate Research Laboratory - MURL
Rational Points on Ellpitic Curves *Spring 2025*

- Wrote a program to model basic arithmetical operations upon Ellpitic Curves in Python.
- Utilized MatPlotLib to model the complexity of Elliptic Curves and the computational power required to determine it.

Professional Association

Linux User Group
President, CyberForce Team Captain Fall 2025 - Current
Department of Energy's CyberForce

- Coordinated an effort to harden a cloud-based network with Free, Open Source network analysis software, discovering 36 major structural vulnerabilties.
- Solved CTF challenges under a tight time constraint with unfamiliar technologies, such as OpenCV, Universal Radio Hacker, and OpenPLC.
- Performed real time network and analysis during a simulated cyberattack to identify, prevent, and properly record vulnerabilties within a live industrial environment.

LUG Events

- Intro to Web Security: SQL Injections & XSS
- Linux Week

Association for Computing Machinery (ACM) Fall 2023 - Current

- Founded SIG Hackathon, a student group centered around training students to compete in hackathons.
- HackMIT 2024 Participant

Technical Skills

Languages: C, C++, Java, Python, F#, Rust, Go, SQL

Technologies: Linux, GitHub, Git, Docker, Proxmox, GDB, Valgrind, Makefile, AWS EC2