

Shyam Krishna Khadka

PhD Candidate | Internet Routing & Security Researcher

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Professional Summary

PhD candidate at the University of Twente with over 13 years of experience in networking, Internet infrastructure, and software development. Research focuses on BGP security, Internet measurement, and DDoS. Previously served as Senior Engineer at Nepal Telecom, successfully leading enterprise networking projects including SD-WAN, HCI, EDR, and network infrastructure deployments.

Education

University of Twente — PhD Candidate (2023–2027)

Research: Internet measurement, routing security, DDoS resilience.

University of Crete — MSc Computer Science

Tribhuvan University — MSc Computer Engineering

Professional Experience

Doctoral Researcher, University of Twente (2023–Present)

- Designed Internet-scale measurement methodologies related to the security of BGP and Autonomous Systems.
- Designed and implemented novel methodologies to detect exposed BGP routers and characterize global DDoS scrubbing deployments.
- Published and presented multiple peer-reviewed papers at leading global networking conferences.

Senior Engineer, Nepal Telecom (2019–2023)

- Led technical evaluation and deployment of SD-WAN, HCI, EDR, Wi-Fi 6, and enterprise networking projects.

System & Network Engineer, Nepal Telecom (2014–2018)

- Managed day-to-day routing, switching, and Linux system administration. Handled technical procurement, compliance testing, and network operations.

Software Developer, Nepal Telecom (2010–2014)

- Developed internal web applications and services utilizing Java, ASP.NET, JavaScript, and Nginx.

Software Developer, Cloudfactory, Kathmandu, Nepal (2009–2010)

- Built web applications in Ruby on Rails.

Selected Publications

- Detecting and Characterizing Exposed BGP Routers (TMA 2026)
- Detecting and Characterizing DDoS Scrubbing from Global BGP Routing (PAM 2026)
- A First Look at the Adoption of BGP-based DDoS Scrubbing Services (CNSM 2025)
- Assessing the Security of Internet Paths (ANRW 2024)

Awards & Recognition

- IRTF Diversity Grant (2026 in Vienna)
- Erasmus Mundus Scholarship at University of Crete
- Faculty Topper, Bachelor of Computer Engineering
- Full Scholarship, both Bachelor and MSc Computer Engineering

Skills

- Networking: BGP, OSPF, MPLS, Routing, Switching, SD-WAN
- Programming: Python, Java, Ruby, C/C++, JavaScript
- Systems: Linux, Git, Virtualization

Languages

English – Professional proficiency, Nepali – Native, Dutch – Basic (A2)