**Dr. Dinh Duc Nha Nguyen**

Principal Investigator, Founder | Assistant Professor, VinUniversity

<https://ndducnha.github.io/my-website/>

Dr. Dinh Duc Nha Nguyen is the Principal Investigator and Founder of VCyber Lab at VinUniversity, specializing in Post-Quantum Cryptography (PQC), AI-driven cybersecurity, and IoT & robotic security. His research focuses on developing next-generation cryptographic solutions, AI-powered cyber defense systems, and quantum-resilient security frameworks to address the evolving challenges of quantum computing, AI-driven cyber threats, and IoT vulnerabilities.

Dr. Nguyen has extensive academic and industry experience, contributing to both high-impact research and real-world cybersecurity applications. He has published extensively in top-tier cybersecurity journals, collaborating with academic institutions and industry partners to advance quantum-safe cryptographic systems, intelligent security automation, and AI-driven threat detection. His work spans securing next-generation networks, enhancing privacy-preserving cryptography, and building autonomous cybersecurity solutions.

In addition to his academic role, Dr. Nguyen serves as an Expert Advisor for PSI Testing and Certification Joint Stock Company (PSI), a leading organization in electrical-electronic product testing and certification in Vietnam. At PSI, he provides expertise in cybersecurity compliance, risk assessment, and secure system integration for telecommunications, industrial electronics, and lithium battery testing. His contributions help bridge academic research with practical cybersecurity implementations, ensuring compliance with international security standards.

Dr. Nguyen is passionate about mentoring and leading research collaborations, working closely with students, researchers, and industry professionals to drive innovations in post-quantum cybersecurity, AI-enhanced defense mechanisms, and IoT security.

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Graduate Researcher

**Van Dong Bui (Will Bui)**

Graduate Researcher, VCyber Lab

Van Dong Bui is a Graduate Researcher at VCyber Lab, VinUniversity, specializing in cyber threat intelligence, OSINT, penetration testing, and digital risk protection. With years of experience in both the private and governmental sectors, he has actively worked against cybercriminal actors, providing cybersecurity consulting, red team assessments, and digital forensics expertise.

Before joining VCyber Lab, Will served as a Senior Cybersecurity Analyst at Lynden Group, conducting penetration testing, red teaming, and vulnerability assessments. He has also worked at Group-IB, protecting banking institutions and crypto platforms from phishing, fraud, and cybercrime activities. His background includes law enforcement experience as a Cybercrime Investigator, where he played a key role in solving over 200 cybercrime cases.

Will holds a Master’s in Cyber Security Analysis from Macquarie University, Australia, and a Bachelor’s in Cyber Crime Investigation from the People’s Police Academy, Vietnam. He is also recognized as a top 1% hacking player on TryHackMe and actively leads "Take Them Down", a non-profit project dedicated to protecting Vietnamese users in cyberspace.

**Mai Do Thi Ngoc (Mia Do)**

Graduate Researcher, VCyber Lab

Mai Do is a Graduate Researcher at VCyber Lab, VinUniversity, specializing in network security, penetration testing, and secure system architecture. With 14 years of experience in telecommunications, software engineering, and cybersecurity, she focuses on secure network design, vulnerability assessment, and system optimization.

Before joining VCyber Lab, she spent six years in telecommunications, working on network infrastructure and security in large-scale deployments. She later transitioned into software engineering, dedicating the past eight years to developing secure systems, automation, and backend security solutions. She is a Certified Ethical Hacker (CEH) and has practical experience in penetration testing, threat analysis, and network defense strategies. In addition to research, she has also served as a part-time lecturer at Cao Thắng College and Ho Chi Minh City University of Transport, teaching network security and software engineering.

She holds a Master’s degree in Telecommunications and is passionate about cyber defense, secure system development, and bridging cybersecurity principles with real-world applications.

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Master's Student

**Lê Quốc Dũng**

Master’s Student, VCyber Lab

Lê Quốc Dũng is a Master’s Student at VCyber Lab, VinUniversity, specializing in cryptography, symmetric key encryption, and post-quantum cryptographic security. He is currently pursuing a Master’s degree in Information Security at Moscow Engineering Physics Institute, following his Bachelor’s in Information Security from Moscow Power Engineering Institute, Russia.

His research interests lie in Boolean functions, cryptanalysis, and the security of symmetric key cryptographic algorithms. He has worked extensively on implementing and analyzing Russian block ciphers (Magma, Kuznechik), leveraging C/C++ and CUDA for high-performance cryptographic computations. His Bachelor’s thesis focused on cryptanalysis using power consumption analysis, applying correlation and differential analysis techniques to recover secret keys.

Dũng has also excelled in international cryptography competitions, earning a Gold Medal in the 2024 NSUCRYPTO International Olympiad in Cryptography, along with multiple Silver and Copper Medals in international mathematics and cryptography contests. He actively contributes to the cybersecurity community through Capture The Flag (CTF) competitions, cryptographic algorithm development, and mathematical modeling.

Beyond research, he is passionate about technical documentation and high-quality LaTeX formatting, actively contributing well-structured mathematical documentation and cryptography notebooks.

**Nguyễn Đình Cường**

Master’s Student, VCyber Lab  
M.S. in Computer and Information Science, The University of Pennsylvania

Nguyễn Đình Cường is a Master’s student in Computer and Information Science at The University of Pennsylvania and a researcher at VCyber Lab, VinUniversity. His research focuses on software and system security, automated program analysis, vulnerability detection, and binary security techniques, aiming to advance both offensive and defensive cybersecurity methodologies.

His expertise lies in reverse engineering, binary hardening, automated exploit detection, and program analysis, leveraging cutting-edge techniques to identify and mitigate software vulnerabilities. He previously worked as a Research Intern at the Systems Security Lab, Sungkyunkwan University (2023), where he contributed to vulnerability detection frameworks and automated security analysis tools.

Key Achievements & Research Contributions

✅ Top 10 Contestant, Bosch CodeRace CTF 2023 – Competed in high-level cybersecurity challenges organized by Robert Bosch GmbH.  
✅ 17th Place, vikeCTF 2023 – Ranked among the top teams in a university-level cybersecurity competition hosted by the University of Victoria.  
✅ First Prize, CECS Day 2022 – Recognized for developing the best programming project at VinUniversity’s College of Engineering & Computer Science.  
✅ Third Prize, The 2020 ICPC Vietnam Northern and Central Provincial Programming Contest – Demonstrated excellence in competitive programming and algorithm design.  
✅ Merit-Based Scholar, VinUniversity – Awarded a prestigious merit-based scholarship for academic and research excellence.  
✅ National Recognition, Fourth Prize – National Science & Engineering Contest 2019 – Acknowledged by the Ministry of Education & Training for outstanding innovation in engineering.

At VCyber Lab, he is actively working on developing advanced binary security tools, automated vulnerability detection frameworks, and novel methods for program security analysis. His goal is to enhance software security through automation, AI-driven security analytics, and robust exploit mitigation strategies.

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Research Assistant

**Vũ Anh Lê (Luffy Le)**

Research Assistant, VCyber Lab

Linkedin: <https://www.linkedin.com/in/luffyle>

Vũ Anh Lê is a Research Assistant at VCyber Lab, VinUniversity, with expertise in algorithm design, mathematical modelling, and machine learning applications in cybersecurity. He received Bachelor of Science in Mathematics at Beloit College, Wisconsin, USA.

He has conducted advanced research on AI-driven cryptography, mathematical security frameworks, and optimization of neural networks for cybersecurity applications. He has interned at Google Research and MIT, working on machine learning for cyber threat detection, adversarial AI defense, and quantum-resistant cryptographic protocols.

His research contributions include:

* Post-Quantum Cryptographic Security Models – Developing novel mathematical techniques for quantum-resilient cryptographic algorithms.
* Computational Security Analysis – Utilizing complex analysis, topology, and differential equations to improve cybersecurity algorithms.
* AI-Driven Cyber Defense Systems – Applying deep learning and mathematical topology to enhance threat detection and adversarial AI resistance.

With a strong foundation in Python, C++, Haskell, and formal verification tools (Coq, Isabelle, Lean), he actively contributes to building mathematically rigorous cybersecurity models for the next generation of AI-optimized and quantum-safe encryption systems.

A person standing on a sidewalk

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Research Assistant

**Trần Đức Anh**

Research Assistant, VCyber Lab

Trần Đức Anh is a Research Assistant at VCyber Lab, VinUniversity, focusing on network security, vulnerability research, and malware analysis. He is currently pursuing a degree in Computer Networks and Data Communication at VNU University of Engineering and Technology (UET).

He has strong experience in web security, reverse engineering, and exploit development, with a particular interest in fuzzing and penetration testing. As part of the UET Information Security Laboratory, he has contributed to Rust library fuzzing and automated vulnerability detection.

In addition to research, he has worked on major projects in Kubernetes security, cloud security (eBPF and Cilium), and AI-enhanced threat analysis. His technical skillset includes C/C++, Python, Rust, Linux security, and web penetration testing (Burp Suite, Nmap, Wireshark).

Driven by the goal of strengthening Vietnam’s cybersecurity landscape, he actively collaborates on research projects that integrate AI, automation, and network security for next-generation cyber defense.

**Nguyễn Hoàng Anh**

Research Assistant, VCyber Lab

Nguyễn Hoàng Anh is a Research Assistant at VCyber Lab, VinUniversity, specializing in network security, cryptography, and cybersecurity operations. He is a fourth-year student at Hanoi University of Science and Technology, majoring in Cybersecurity.

With hands-on experience at Viettel Cyber Security, the Vietnam National Cyber Security Center (NCSC), and VNCS, Hoàng Anh has worked extensively in threat intelligence, security operations, penetration testing, and cryptographic security frameworks. His expertise includes network defense strategies, AI-driven security automation, and advanced cryptographic protocols.

He has actively contributed to research projects on secure authentication, network intrusion detection, and post-quantum cryptography. Passionate about mathematics-based cybersecurity solutions, he is skilled in applied cryptography, security control frameworks (NIST, CIS), and firewall management (Cisco ASA, IPTables).

Hoàng Anh is committed to bridging theoretical cryptography with real-world security applications, working on secure AI-driven cybersecurity models and quantum-safe encryption frameworks.

**Võ Hoàng Khanh**

Research Assistant, VCyber Lab

Võ Hoàng Khanh is a Research Assistant at VCyber Lab, VinUniversity, specializing in enterprise cybersecurity, SIEM solutions, and threat analytics. He holds a degree in Information Security from the University of Information Technology (UIT), Vietnam National University - HCM.

He has industry experience at VNCS and DTG Technology, where he worked on penetration testing, SIEM deployment, and enterprise security solution integration. His expertise includes endpoint security (SentinelOne, TrendMicro), privileged access management (BeyondTrust), and data loss prevention (Zecurion DLP).

In research, Khanh focuses on AI-driven cybersecurity models, malware detection automation, and Web Application Firewalls (ModSecurity). He has contributed to Splunk-based threat analytics projects, cybersecurity policy compliance, and enterprise-level security architecture design.

With a passion for bridging security research and real-world defense mechanisms, he aims to develop next-generation cyber resilience frameworks for critical infrastructure security.

Collaborator

**Dr. Le Duy Dung (Andrew)**

Collaborator, VCyber Lab

Dr. Le Duy Dung (Andrew) is an Assistant Professor at the College of Engineering and Computer Science, VinUniversity, where he leads R2Studio, a research group focused on AI-powered search and recommendation, and IndoorCare, which explores AI and simulation for smart indoor spaces. He is also the Lab Director of the Living Lab at VinUniversity’s Center for Environmental Intelligence, a technology hub connecting global experts to solve sustainable development challenges.

Before joining VinUniversity, Dr. Dung was a Senior Data Scientist in the Ads and Personalization team at Grab Holdings Inc. and a Research Scientist at Singapore Management University (SMU). He earned his Ph.D. in Data Science and Engineering from SMU, under the supervision of Assoc. Prof. Hady W. Lauw.

His research interests include:  
✅ AI-Driven Cybersecurity – Enhancing automated threat detection and cyber defense using AI.  
✅ Federated Learning & Secure AI Systems – Developing privacy-preserving AI models for cybersecurity applications.  
✅ Multimodal Learning for Cybersecurity – Leveraging multi-source data fusion for advanced cyber intelligence.  
✅ Robust AI Models for Threat Detection – Exploring adversarial robustness and AI-powered security analytics.

Dr. Dung has led multiple funded research projects, including Smart Indoor Air Quality Control Systems, AI-powered Customer Experience Analytics, and Secure Federated Learning for Multi-Objective Recommendation Systems. His work has been published in top-tier AI conferences such as AAAI, ICML, SIGIR, and The Web Conference.

At VCyber Lab, he collaborates on AI-driven cybersecurity research, federated learning for cyber defense, and next-generation threat detection models.

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**Dr. Keshav Sood**

Collaborator, VCyber Lab  
Senior Lecturer, School of IT, Deakin University

Dr. Keshav Sood is a Senior Lecturer in Cybersecurity at Deakin University, Australia, and an expert in next-generation network security, software-defined networking (SDN) security, and cyber resilience. He earned his Ph.D. in Information Technology from Deakin University, focusing on SDN security, and has since contributed extensively to cybersecurity research, network privacy, and data security.

Dr. Sood’s work has been published in leading cybersecurity journals, including *IEEE Transactions on Mobile Computing, IEEE Transactions on Information Forensics and Security, and IEEE Transactions on Dependable and Secure Computing (IEEE TDSC)*. He has successfully obtained research funding from the Australian Department of Defense, Cyber CRC, and the Department of Foreign Affairs and Trade (DFAT, Australia).

He serves as an Associate Editor for multiple IEEE journals, including the IEEE Internet of Things Journal, IEEE Open Journal of Computer Society, and IEEE Transactions on Dependable and Secure Computing. Dr. Sood is also an HDR Coordinator at Deakin University, supervising Master’s and Ph.D. students in cybersecurity, distributed computing, and secure data management.

At VCyber Lab, he collaborates on post-quantum security research, AI-driven cyber defense, and federated security models for protecting critical digital infrastructure.

A person standing in front of a chalkboard

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**Dr. Syed Wajid Ali Shah**

Collaborator, VCyber Lab  
Research Fellow, Deakin Cyber Research and Innovation Centre

Dr. Syed Wajid Ali Shah is a Casual Research Fellow at Deakin University’s Centre for Cyber Resilience and Trust, specializing in cybersecurity, distributed computing, and human-centered computing. He earned his Ph.D. from the University of New South Wales (UNSW) and has contributed to advanced security models, privacy-preserving systems, and trust frameworks for distributed environments.

As part of Deakin’s Cyber Research and Innovation Centre, Dr. Shah is involved in cyber resilience projects, network security research, and digital trust modeling. His expertise spans secure cloud computing, privacy-enhancing technologies, and AI-powered security solutions.

At VCyber Lab, Dr. Shah collaborates on quantum-resilient security architectures, AI-driven cybersecurity, and distributed system security for next-generation networks.

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Scientific Advisor

**Associate Professor Lei Pan**

Scientific Advisor, VCyber Lab  
Associate Professor, School of IT, Deakin University

Prof. Lei Pan is an Associate Professor at Deakin University’s School of Information Technology and a key researcher at the Deakin Cyber Research and Innovation Centre. He is recognized as one of the top researchers in Post-Quantum Cryptography (PQC) worldwide, contributing to quantum-resilient cryptographic protocols, distributed computing security, and advanced cryptographic systems.

He earned his Ph.D. from Deakin University, a Master of Science from Chalmers University of Technology, Sweden, and a Bachelor’s degree in Engineering from the University of Science and Technology of China. His research is deeply focused on cryptographic security frameworks, PQC algorithm optimization, and cybersecurity resilience in distributed systems.

Prof. Pan has played a pivotal role in advancing the security of next-generation cryptographic schemes that remain resistant to quantum computing attacks, ensuring long-term data integrity in secure communications, IoT, and cloud-based infrastructures.

At VCyber Lab, he serves as a Scientific Advisor, collaborating on post-quantum security architectures, cryptographic resilience strategies, and AI-enhanced cybersecurity frameworks. His expertise strengthens the lab’s mission to pioneer the next era of cyber defense in the post-quantum world.

A person in a suit smiling

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**Professor Yong Xiang**

Scientific Advisor, VCyber Lab  
Professor of Network Engineering, Deakin University

Prof. Yong Xiang is a Professor of Network Engineering at Deakin University and a leading expert in cybersecurity, distributed computing, artificial intelligence, and trustworthy computing. He is the Director of the Trustworthy Intelligent Computing Lab (formerly Deakin Blockchain Innovation Lab) and has held key leadership roles, including Associate Head of School (Research), Director of AI and Data Analytics Research Cluster, and Director of the Data to Intelligence Research Centre.

Prof. Xiang earned his Ph.D. from the University of Melbourne and has secured numerous competitive research grants, including nine Discovery and Linkage grants from the Australian Research Council (ARC). With over 270 journal publications and seven authored books, his research contributions have been widely recognized and commercialized.

His expertise spans:  
✅ AI-Driven Cybersecurity – Developing machine learning-based security models for cyber threat detection and prevention.  
✅ Blockchain and Secure Distributed Systems – Designing trustworthy blockchain-based security solutions.  
✅ Network Security and Privacy – Enhancing secure communication protocols for next-generation networks.

Prof. Xiang is an Associate Editor for IEEE Transactions on Network Science and Engineering, IEEE Communications Surveys and Tutorials, and Computer Standards & Interfaces. He has also served as a Senior Area Editor for IEEE Signal Processing Letters and a Guest Editor for IEEE Transactions on Industrial Informatics and IEEE Multimedia.

As a Scientific Advisor at VCyber Lab, Dr. Xiang collaborates on AI-enhanced cybersecurity, PQC research, and advanced network security solutions, ensuring cutting-edge innovation in cyber resilience and intelligence-driven security.

A person in a suit and tie

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