Zubair Ahmad

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Interests and Vision

- A committed and enthusiastic Assistant Professor in Cyber Security with excellent communication and organizational skills. Reliable and empathetic, I am dedicated to supporting student needs and fostering an inclusive learning environment. I am skilled in the use of information and communication technology, and I bring a proactive approach to both independent and collaborative work.

Experience

2024 **Assistant Professor - Cyber Security**, *Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Pakistan*

- Involved in the research and development activities related to web security and privacy, web measurements, compliance regulations, GDPR, and the Internet of Things
- Extensive experience in teaching and developing cybersecurity courses at the undergraduate, and professional levels, ensuring alignment with industry standards and emerging trends.
- **Courses Taught** - Secure Software Design, Data Structures and Algorithms.

2020 *Research Assistant*, **ACADIA Research Lab, University of Venice, Italy**
2024

- Research: Actively involved in the development of the research activity of the ACADIA research group under the supervision of Stefano Calzavara. We have worked on research projects related to **"Dynamic Taint Tracking for Web Privacy Analysis"**.
- Teaching: 40 Hours per year teaching and exam assistance activity using different digital platforms and software tools. Extensive experience in teaching and developing cybersecurity courses at the undergraduate, postgraduate, and professional levels, ensuring alignment with industry standards and emerging trends.
- Led a team of Ph.D. students as a student representative to suggest changes in the cyber security curriculum, demonstrating excellent teamwork and organizational skills. Managed project timelines and ensured all deliverables were met on schedule.
- **Courses Taught** - Information Security, Data Privacy, human factors and computer security
- **Master Thesis Supervision** - Samuele Casarin and Hamza Rouhani

March 2023	**Industry Experience** *Research Intern* , **CISPA Helmholtz Center for Information Security, Germany**
July 2023	○ Worked as a research intern at Secure Web Application Group (SWAG) under the supervision of Ben Stock. We have worked on research projects related to "Analyzing the Privacy Protection Mechanism in different Browsers"
	○ Proficient in Python with hands-on experience in developing and optimizing software solutions. Applied these languages in various industry projects, contributing to the efficiency and scalability of distributed systems.
	○ Instruction on identifying and mitigating organizational cybersecurity risks, including case studies and strategic planning that balances security with operational goals.
May 2022	*Research Visit* , **European Parliament, Venice Universities' Model European Union**
	○ Worked on the formulation of different articles of **EU AI Act**
2016	*Research Assistant*, **CQUPT University Chongqing, China**
2019	○ Research: Actively involved in the development of the research activity of the Wireless Communication Systems research group under the supervision of Rong Chai. We have worked on research projects related to **"Energy Efficiency Optimization Based Joint Resource Allocation and Clustering Algorithm for Machine-to-machine Communication"**.
	○ Led and participated in multiple projects focused on the development, management, and testing of large-scale distributed systems, including Edge computing and IoT solutions.
	○ Actively involved in initiatives promoting equality and diversity in education.
	○ Regularly mentor students, providing guidance and support to help them achieve their academic and personal goals.
Aug 2013 to Dec 2013	*Trainee Engineer*, *PTCL, Islamabad, Pakistan.*
	○ Worked in the business and operation department and hands-on experience with different software like CRM, BNCC, and OMT
Sep 2013 to May 2014	*Field Engineer*, *IPL I2c.Inc, Islamabad, Pakistan.*
	○ Software and Hardware installation - Power and Control Machines.
	○ Software and Hardware installation - ATM Machines.

▬▬▬ Education

2020	**Ph.D in Computer Science** *University of Venice*, Italy

to current	○ **Major Subjects:** Web Security and Privacy, Information Flow Analysis, Formulation of European Projects, Scientific research methods, Social media dynamics. ○ **Research Interests:** Online Security and Privacy, Internet of Things, Web measurements, EU compliance Regulations, GDPR. ○ **Ph.D. thesis title:** Dynamic Taint Tracking for Web Privacy Analysis.
2021	**OPLSS Summer School, Foundations of Programming and Security** *University of Oregon and Boston University* , USA ○ **Major Subjects:** Session-Typed Concurrent Programming, From Program Equivalences to Program Metrics, Principles of Programming Languages, Reasoning about Probabilistic Programs, Information-flow Control Libraries. Confidentiality, Integrity, and Availability (CIA) triad. Identification and mitigation of cybersecurity risks for organizations.
2016–2019	**(87%) Master Degree in Information and Communication Engineering**, *CQUPT Chongqing* , China. ○ **Major Subjects:** Internet of Things, Application Design of Advance Programmable Logic Devices, Stochastic Processes, and Applications, Wireless Communication. ○ **Master thesis title:** Joint Energy Efficiency Based Power Allocation, Mode Selection and Clustering Algorithm for Clustered IoT Devices ○ Grade: 110/110 – **Outstanding Graduate Award 2019**
2009–2013	**B.E Electronics Engineering**, *DUET*, Karachi, Pakistan. ○ **Major Subjects:** Control Systems, Industrial Electronics, Digital Control System. ○ **Research Project:** Autonomous Robot Navigation Using GPS ○ **Bachelor thesis title:** Computer Controlled WIFI Robot with Real-Time Video Transmission and Other Intelligence Features ○ Grade: 107/110
Languages	Urdu (native), English (native), Chinese (fluent), Italian (basic).

Publications

2024	**Zubair Ahmad**, Stefano Calzavara, Samuele Casarin, and Ben Stock. "Information Flow Control for Comparative Privacy Analyses" , (International Journal of Information Security - 2024)
TWEB 2023	**Zubair Ahmad**, Samuele Casarin, and Stefano Calzavara. "An Empirical Analysis of Web Storage and its Application in Web Tracking" (ACM Transaction on Web Journal - 2023)
MadWeb-NDSS 2022	**Zubair Ahmad**, Samuele Casarin, and Stefano Calzavara. "What storage? An Empirical Analysis of Web Storage in the Wild" MadWeb-NDSS USA, 2022

ChinaCom 2020 **Zubair Ahmad**, Ma P, Wei T, Wang L, Chai R *"Service Delay Minimization-Based Joint Clustering and Content Placement Algorithm for Celluar D2D Communication"* Communications and Networking. ChinaCom , Feburay 2020.

ChinaCom 2020 C Liu, **Zubair Ahmad**, Rong Chai, Qianbin Chen. *"Energy Efficiency Optimization Based Joint Resource Allocation and Clustering Algorithm for M2M Communication Networks"*. ChinaCom, Springer, Cham. vol 313, pp 351-363

WOCC 2019 Waleed Almughalles, Rong Chai, Junliang Lin, **Zubair Ahmad**. *"Task Execution Latency Minimization-based Computation Offloading and Cell Selection for MEC-Enabled HetNets"*. 28th WOCC 2019 Beijing China

Awards, Honors and Fellowships

- **Best Performance Award** European Parliament - 2021-22
- **Outstanding Graduate Award** – Master Degree 2019
- **Italian PhD Fellowship**, 2020
- **Best Performance Award** – United States Academic Decathlon 2017
- **Best Paper Award**, China 2019
- **First Prize** "One Belt One Road Business Idea Challenge, China 2017
- **Chinese Scholarship Award**, 2016
- PhD Representative – Ca'Foscari University Venice 2021
- Vice President – International Students Association CQUPT China 2017

Community Services

- **Privacy Enhancing Technologies Symposium 2025 (PETs)**–Program Committee
- **MadWeb 2024** (Co-located with NDSS) – Program Committee
- **Transactions on Consumer Electronics** - Reviewer