

TALHA PARACHA

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EDUCATION

Northeastern University, Boston Ph.D. in Computer Science, advised by Prof. David Choffnes.	2018 - 2023 CGPA: 3.95 / 4
National University of Sciences and Technology, Islamabad Bachelor of Software Engineering.	2014 - 2018 CGPA: 3.81 / 4

WORK EXPERIENCE

Research Assistant, Northeastern University <i>Internet Security, Privacy</i> Exploring the caveats of HTTPS usage in different settings – such as the web and IoT devices.	Fall 2018 - Present Prof. David Choffnes
Research Engineer Intern, Cloudflare <i>Internet Security, Privacy</i> Improved customers' internal security configurations using insights from academic research. Our product, SSL/TLS Recommender, was successfully released as an opt-in feature on the Cloudflare dashboard.	Summer 2020 Nick Sullivan
Research Intern, EPFL - Switzerland <i>Medical Data Security, Blockchains</i> Implemented a blockchain-based access control system for medical data featuring a decentralized design with full auditability (more details @ talhaparacha.com/MedChain.pdf).	Summer 2018 Prof. Jean-Pierre Hubaux
Research Intern, Rutgers University <i>Computer Networks, Measurements</i> Proposed modification to a distributed average consensus algorithm for packet-switched networks to reduce its bandwidth overhead by $\approx 25\%$ (more details @ talhaparacha.com/communication.pdf).	Summer 2017 Prof. Waheed Bajwa
Research Intern, TUKL NUST R&D Center <i>Machine Learning, Computer Vision</i> Proposed new techniques for privacy-preserving incremental learning, including the usage of adversarial instances and model layer fixation. Resulting group project won the best bachelor's thesis award. (more details @ talhaparacha.com/fyp.pdf)	Spring 2017, Spring 2018 Prof. Faisal Shafait
Open-source Developer, Google Summer of Code <i>Web Development, Internet Security</i> Built an encryption module for Drupal, the popular open-source web framework, to secure the site's data-at-rest with users' login credentials. Google sponsored all the work via GSoC'16 program. (more details @ drupal.org/project/pubkey_encrypt)	Summer 2016

OTHER ACTIVITIES

Mentor, Google Summer of Code & Google Code-In Mentored students to complete open-source projects for Drupal via GSoC'17 and GCI'16 programs.
Organizer, MLH Local Hack Day Conducted a bug-fixing workshop in college to teach how open-source communities work.
Hackathon Winner , Women Transport Innovation Hackathon, and SEECs Social Hackathon
Travel Grants Recipient , NDSS Symposium 2017 at San Diego, and DrupalCon 2017 at Baltimore

PUBLICATIONS

A Deeper Look at Web Content Availability and Consistency over HTTP/S (TMA'20)

Talha Paracha, Balakrishnan Chandrasekaran, David Choffnes, Dave Levin.

When Speakers Are All Ears: Characterizing Misactivations of IoT Smart Speakers (PETS'20)

Daniel Dubois, Roman Kolcun, Anna Maria, Talha Paracha, David Choffnes, Hamed Haddadi.

TECHNOLOGIES

C, C++, Python, Java, Go, PHP, MySQL, NoSQL, HTML + CSS, Javascript.

Linux, Git, Travis CI, OpenCV, L^AT_EX, Wordpress, Drupal, Adobe Photoshop.

GRADUATE COURSEWORK

CS 6740	Network Security	A
CS 5770	Software Vulnerabilities and Security	A
CS 7600	Intensive Computer Systems	A
CS 6140	Machine Learning	A
CS 7250	Information Visualization	A-
CS 7400	Intensive Principles of Programming Languages	n/a