

# Amir Naseredini

Security Engineer at Canonical, London, UK

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## Interests

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- Open Source Software
- Vulnerability Patching
- Rowhammer Attack
- Formal Security
- Linux Kernel
- Vulnerability Analysis
- Microarchitectural Attacks
- Secure Information Flow

## Education

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### University of Sussex

*PhD, Informatics (Computer Science)*

Thesis title: "Towards Automatic Analysis of Microarchitectural Attacks"

**Brighton, UK**

*Sep. 2018–Nov. 2023*

### Amirkabir University of Technology (Tehran Polytechnic)

*MSc, Information Security Eng.*

Thesis title: "Algebraic Cryptanalysis of ARX-Design Hash Functions"

**Tehran, Iran**

*Sep. 2015–Feb. 2018*

### University of Kurdistan

*BSc, Information Technology Eng.*

Received the 1<sup>st</sup> Student Award, in the Computer Engineering and Information Technology Department with overall GPA of 92.35%

**Sanandaj, Iran**

*Sep. 2011–July 2015*

## Experience

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Vocational.....

### Canonical

*Security Engineer*

**London, UK**

*Jan. 2023–Current*

- To analyse, fix, and, test vulnerabilities in Ubuntu packages
- To keep track of vulnerabilities in Ubuntu releases as they are discovered, researched, and fixed
- To review snaps before granting non-default privileges to them at the Snap Store
- To audit source code for vulnerabilities

### Google

*Security Engineer Intern*

**London, UK**

*Sep. 2022–Dec. 2022*

- To develop kernel modules and device drivers
- To analyse VirtIO devices
- To develop a full stack device in crosvm in order to make the DRAM analysis easier

### Royal Holloway, University of London

*Post-Doctoral Research Assistant*

**London, UK**

*Mar. 2022–Sep. 2022*

- To carry out research on Active Automata Learning and DRAM security
- To develop our open source tool, ALARM, to analyse a DRAM model against Rowhammer

**Amirkabir University of Technology (Tehran Polytechnic)***Security Researcher***Tehran, Iran***Feb. 2017–Sep. 2018*

- To carry out research on computer security assessment
- To perform web application penetration testing

Miscellaneous.....

**University of Sussex***Associate Tutor***Brighton, UK***Sep. 2018–Sep.2022*

To help running various modules in the Department of Informatics

**TU Graz***Visiting Researcher***Graz, Austria***Sep. 2020–Mar. 2021*

- To carry out research on Microarchitectural Attacks and Programming Languages and Execution Environments
- To develop a tool, Speconnector, to analyse and perform Spectre independent of the target language and execution environment

**Amirkabir University of Technology (Tehran Polytechnic)***Teaching Assistant***Tehran, Iran***Sep. 2015–Jan.2018*

To help running various modules in the Department of Computer Engineering

**University of Kurdistan***Teaching Assistant***Sanandaj, Iran***Sep. 2012–May.2015*

To help running various modules in the Department of Computer Engineering

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**Certificates, Publications, and Presentations****Certificates***Linux Foundation*

- Linux Kernel Internals and Development (LFD420), 2023
- A Beginner's Guide to Linux Kernel Development (LFD103), 2023
- Open Source Licensing Basics for Software Developers (LFC191), 2023

**Publications***Notable Projects*

- A. Naseredini, M. Berger, M. Sammartino, S. Xiong, "ALARM: Active LeArning of Rowhammer Mitigations", Hardware and Architectural Support for Security and Privacy (HASP) 2022, October 1, 2022 – co-located with MICRO 2022
- A. Naseredini, S. Gast, M. Schwarzl, P. Bernardo, A. Smajic, C. Canella, M. Berger, D. Gruss, "Systematic Analysis of Programming Languages and Their Execution Environments for Spectre Attacks", 8th International Conference on Information Systems Security and Privacy (ICISSP2022), February 2022

**Presentations***Notable Projects*

- "ALARM: Active LeArning of Rowhammer Mitigations". Presented at the Informatics department, King's College London, UK, March 2023
- "Systematic Analysis of Programming Languages and Their Execution Environments for Spectre Attacks". Presented at the Computer Science department, University College London (UCL), UK, February 2022

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**Skills**

- Debian based Linux
- Coverity
- C/C++
- Git
- Wireshark
- Python

- Rust
- Haskell
- Nmap
- LaTeX
- Java
- Metasploit
- Tenable Nessus
- Public Speaking

## Membership and Services

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- Student Volunteer at ECOOP and Curry-On 2019
- Student Volunteer at PLDI 2020

## Languages

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**Kurdish:** Native

**Persian:** Native

**English:** Full Professional

**Arabic:** Elementary

## Hobbies

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- Running
- Walking
- Rubik Solving
- Physical Fitness
- Swimming
- Listening to Music
- Reading
- Sudoku Solving
- Volleyball
- Football