

Aman Hamidsha

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EDUCATION

University of Warwick

Bachelor of Science in Computer Science

Coventry, UK — Grade: **2:1** (Graduated)

2023-2026

Merryland Interational School

Including Top in the UAE for AS-Level Further Mathematics

Grades: **4A*1A** (A-Levels)

2021-2023

EXPERIENCE

Network Security Engineer Intern

Oct - Dec 2021

Burjeel Medical City, Abu Dhabi

- Worked with PuTTY for port forwarding and thus helping secure various hospital management systems.
- Regularly kept logs on the functioning of various hospital management systems.
- Prepared an animated infographic about findings using manim (a python module).

PROJECTS

Awar-E: Cyber Awareness App | Dart (Flutter, Riverpod, Postgres, Serverpod)

Jan - Mar 2026

- Developed a full-stack cross-platform application using Flutter (web, linux, and android compatible).
- Comprehensive front-end design using figma and extensive testing conducted to ensure usability. Core design principles followed.
- Contains simulations to help the general public gain e-safety awareness and to be cautious of cyber threats. (simulators: email, SMS, → threats: phishing, smishing)
- Implemented OAuth for secure logins.
- Implemented backend using postgres and serverpod (account management and logins).
- Dyanmically displays up to date cyber news and CVE infomation baesd on keywords via the CVE API.
- Developed a machine learning algorithm to analyse user responses to suspicious emails and texts.
- App content (curriculum) baesd on NIST publications.

SBC-ARP | C (sys, net, netinet, netpacket, openssl, arpa)

Jul - Sep 2025

- Researched designing a secure, backwards-compatible ARP protocol to mitigate ARP spoofing and man-in-the-middle attacks while preserving compatibility with existing network infrastructure.
- Developed a decentralised IP-MAC binding verification scheme using cryptographically signed DHCP lease "tokens" (RSA signatures), enabling distributed validation across network switches and clients.
- Evaluated and compared centralised (DHCP server validation) and decentralised trust models, analysing trade-offs including scalability, bandwidth usage, single points of failure, and resilience against DHCP spoofing.
- Proposed network-layer security mechanisms including Dynamic ARP Inspection, trusted/untrusted switch ports, and authenticated IP-MAC binding verification to strengthen enterprise network security.
- Collaborated with two colleagues as part of Warwick's Undergraduate Research Support Scheme (URSS). Received maximum bursary of £1500.

TreeGame | Python (Pygame)

Feb 2024

- Pair-programmed a video game in python where 2 players race to the top of a tree.
- Incorporated physics and maths to generate branches and designed algorithms for branches to break if player doesn't jump up fast enough.

TECHNICAL SKILLS

Languages: Python, C, Rust, Haskell, OCaml, Dart, HTML, CSS, JavaScript

Developer Tools: Git, Docker, VS Code