



# Arad Haji Ali Afzali

Computer Engineer | Cybersecurity Engineering Graduate Student

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## Profile

Cybersecurity Engineering Master's student at Politecnico di Torino with a solid background in Computer Engineering. Experienced Linux Support Specialist with proven expertise in server administration, and hosting infrastructure. Skilled in Python, Django, and network security. Passionate about bridging the gap between software development and secure system operations.

## Education

### **Master of Cybersecurity Engineering, Politecnico di Torino (Polytechnic University of Turin)**

September 2025 - Present

### **Bachelor of Computer Engineering, Sharif University of Technology**

February 2020 – July 2024

## Work Experience

### **Linux Support Specialist (Hosting) at ParsPack Company**

February 2025 – September 2025

- **Resolved** complex technical support tickets related to DNS, SSL, Email delivery, and database management, diagnosing issues within CMS platforms like WordPress.
- **Administered** Linux server environments (CentOS, Ubuntu) and managed hosting control panels (cPanel, DirectAdmin) to ensure high availability for clients.
- **Optimized** web services (Apache, Nginx, MySQL) and mitigated high-load server performance issues using monitoring tools like Zabbix, Cacti, and PRTG.
- **Debugged** network and server errors utilizing knowledge of TCP/IP, Network+, and CCNA concepts to ensure stable connectivity.

## Featured Projects

### **DDoS Attacks Detection & Characterization | Python, Machine Learning, Network Security |**

November 2025 – January 2026

Engineered a complete machine learning pipeline to detect and characterize DDoS attacks for the ML4N university project, implementing supervised models (XGBoost, LightGBM) and unsupervised clustering (K-Means, DBSCAN) on the CICFlowMeter dataset. Conducted in-depth feature analysis and model explainability using SHAP and PCA to identify key attack vectors and categorize traffic behaviors.

### **Self-Hosted Cloud Storage | Django, Python, Encryption | October 2023 – June 2024**

Architected a secure, self-hosted cloud storage solution using Django, focusing on file synchronization, user authentication, and data encryption to eliminate third-party dependencies.

Designed the system for flexibility, allowing for custom deployment on personal home servers or dedicated hardware.

### **Secure Messaging Application | Python, Cryptography, SSL/TLS | April 2024 – June 2024**

Engineered an end-to-end encrypted chat system in Python, implementing RSA-4096 key generation with OAEP padding and SSL/TLS protocols.

Developed a custom GUI to manage secure key exchange and facilitate real-time, encrypted communication sessions.

## **Tax System Assistant (AI Chatbot) | NLP, Machine Learning, Web Dev | Oct 2023 – Dec 2023**

Led the development of an AI-driven tax assistant platform, integrating NLP algorithms to streamline user queries and improve accessibility.

Utilized Jira and GitHub for agile project management, ensuring seamless integration between the AI model and the responsive web interface.

## **Online Bank Website | Front-end Development, Team Leadership | April 2023 – June 2023**

Developed the front-end architecture for a banking platform using HTML, CSS, and JavaScript, implementing secure login portals and interactive user dashboards.

Collaborated within a Scrum team to deliver a responsive financial interface, adhering to strict client specifications and deadlines.

## **Internship**

### **Web Development Intern | Rivas System Company**

July 2023 – September 2023

- **Completed** an intensive 8-week internship, collaborating with senior developers to build full-stack web solutions for client projects.
- **Developed** functional, responsive front-end interfaces using Bootstrap and implemented robust back-end architectures using Django and PHP.
- **Enhanced** proficiency in the full software development lifecycle (SDLC), adapting to professional coding standards and team workflows.

## **Licenses & Certification**

### **Web Programming, Tehran Institute of Technology (MFT)**

July 2022 – September 2022

### **Programming with Python, Tehran Institute of Technology (MFT)**

July 2021 – September 2021

## **Skills**

**Languages:** Python, Go (Golang), SQL, PHP, Bash Scripting.

**Web Development:** Django, HTML5, CSS3, JavaScript, Bootstrap.

**Systems & Administration:** Linux (CentOS, Ubuntu), Apache, Nginx

**Networking & Tools:** CDN Management, DNS, SSL/TLS, Git, GitHub, Jira, cPanel/DirectAdmin.