

Tomas Petros, Information Technologist | Golden Visa Awardee

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LINKS

[Github](#), [Linkedin](#)

PROFILE

Skilled IT professional with 3+ years of experience, seeking a role in computer science, data science, and machine learning to leverage my expertise and contribute to the field.

EDUCATION

Sep 2022 — Present	Software Engineering, 42 Abu Dhabi <div>Al Mina, Abu Dhabi</div> <ul style="list-style-type: none">• Innovative project-based learning environment.• Lacks traditional classroom structures: peer-to-peer, teacher-less, classless.• Conducted 40+ peer evaluations.• Collaborated on diverse projects, notably "minishell".
Jan 2019 — Dec 2022	Bachelor in Information Technology, Zayed University <div>Abu Dhabi</div> <ul style="list-style-type: none">• Graduated with a 3.88 GPA.• Honored with the Golden Visa award for academic excellence.• Recognized on the Dean's List five times.

EMPLOYMENT HISTORY AND EXPERIENCE

Dec 2022 — Present	Research Assistant, TII X Zayed University <div>Abu Dhabi</div> <ul style="list-style-type: none">• Project: <i>FI-detect</i> – Spearheaded the development of an API-based ransomware detection solution employing Federated Learning.• Leadership Role: Directed a team of two, ensuring collaborative research and streamlined project progression.• Model Optimization: Evaluated and fine-tuned multiple machine learning algorithms, achieving a significant reduction in false positives to just 6%.• Performance Excellence: Crafted a predictive model specifically for Windows OS, achieving a standout classification accuracy of 92.7% in ransomware detection through Federated Learning techniques.• Proficient Communication: Demonstrated exemplary writing prowess in crafting original correspondence and detailed reports.
Jan 2022 — Jul 2022	Part-Time: Research Assistant, Zayed University <div>Abu Dhabi</div> <ul style="list-style-type: none">• Research Topic: "RootAsRole (RAR)" - Development of a secure Mandatory Access Control (MAC) module.• Vulnerability Assessment: Utilized static analysis techniques to identify and assess potential vulnerabilities within the RootAsRole (RAR) module.• Technical Proficiency: Remedied intricate bugs, ensuring the robustness of the module.• Versatile Testing: Validated the functionality of RootAsRole across diverse scenarios to guarantee reliability.• Communication Excellence: Compiled and presented detailed findings and solution strategies to supervisory personnel.
Aug 2019 — Dec 2022	Peers Advocate Leader - PALs, Zayed University <div>Abu Dhabi</div> <ul style="list-style-type: none">• Tutoring students facing difficulties in Information and Technology related subjects
Aug 2020 — Dec 2020	Teaching Assistant, Zayed University <div>Abu Dhabi</div> <ul style="list-style-type: none">• Assessed students' labs reports, Worked at an independent level, while also serving as an effective and enthusiastic collaborator.• Performed automated testing tasks and developed complex features routinely for networking labs.

PROJECTS

May 2022 — Aug 2023	Project: Secure end-to-end encrypted messaging application <div>Abu Dhabi</div>
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- **Project:** Development of a secure end-to-end encrypted messaging application.
- **Research Topic:** "Younme" - A novel E2EE (End-to-End Encryption) protocol designed for instant messaging (IM) applications.
- **Innovative Approach:** Pioneered a mobile app that enhances the Signal protocol's capabilities, addressing its inherent limitations and bolstering true E2EE.
- **User-Centric Key Exchange:** Facilitated physical key bundle sharing through QR-code scanning between devices, eliminating the need for centralized public key storage.

May 2023 — Aug 2023	Minishell	Mina, Abu Dhabi
	<ul style="list-style-type: none"> • Developed "Minishell" for 42 Abu Dhabi: a minimal Unix shell program. • Enabled command execution, process management, I/O redirection, and signal handling. • Employed system calls and file handling for a functional shell interface. • Showcased expertise in Unix, system programming, and CLI development. • Collaborated with peers, conducting code reviews for project success. 	
Mar 2022 — May 2022	Virtual Machine Deployment in Citrix XenServer	
	<ul style="list-style-type: none"> • Deployed and managed a virtual machine infrastructure using Citrix XenServer and XenCenter. • Implemented on-demand availability of virtual machines to meet dynamic workload requirements. • Collaborated with the team to assess resource utilization and allocate virtual machines efficiently. • Ensured proper security measures by implementing firewalls and access controls within the virtual machine environment. • Monitored and maintained the virtual machine environment, troubleshooting issues, and ensuring uptime and availability. 	

PROGRAMMING SKILLS AND TOOLS	Network and System Administration Imperative Programming, C/C++ Azure, Microsoft Hyper-V Virtualization, Citrix Xenserver/Xencenter	Containerization, Docker Relational Databases (MySQL, SQLite, PostgreSQL, SQL Server) Python -- FastAPI Operating systems, *nix, MacOS, Windows
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EXTRA-CURRICULAR ACTIVITIES

Aug 2022 — Dec 2022	Member of Student Council, Zayed University	Abu Dhabi
Oct 2022	CPTC Competition, Rochester institute of technology	Dubai
	<ul style="list-style-type: none"> • Engaged with a team of 6 pen testers to perform comprehensive penetration testing on a mock organization. 	

SCHOLARSHIPS AND AWARDS

May 2019 — Present	Dean's List	Abu Dhabi
	<ul style="list-style-type: none"> • Awarded Dean's list for maintaining a GPA of 3.8 and above for consecutive 5 semesters. 	
Jan 2019 — Dec 2022	Fully Funded Scholarship	Abu Dhabi
	<ul style="list-style-type: none"> • A fully funded merit-based scholarship from MOE, UAE. 	

ACHIEVEMENTS AND CERTIFICATIONS	Certificate of ILM Level 2: Institute of Leadership and Management Certificate of CCNA: Routing and Switching Certificate of HCIA: Huawei Technologies Cloud Computing	
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