Describe a skill or knowledge you acquired recently that has been impactful for you. Why did you make this investment? What has the outcome been?

Recently, I invested time in enhancing my skills related to Azure AI platform. Given the increasing importance of AI solutions in the industry, I wanted to stay ahead of the curve. The outcome has been highly impactful, as it allowed me to actively contribute to Azure-based AI automation and efficiently manage Azure cloud resources.

What new skill would you like to learn? Why do you think this is important or timely or interesting? Why do you think you will be good at it?

I'm keen to delve deeper into the realm of open-source software development. It's an area of software engineering that not only aligns with the spirit of collaboration but also empowers innovation. I believe I'll excel in it because I truly want to improve my coding skills and ability to work effectively in distributed teams.

What security products or projects have you contributed to? What was your personal contribution?

Throughout my career, I've had the privilege of contributing to several notable security products and projects, each with its unique challenges and opportunities for personal contributions. These experiences have enriched my understanding of security in software engineering and its critical importance. Here are a few standout examples:

- Azure Security Automation Project:

  One of my significant contributions was to an Azure Security Automation Project at 76 Software Engineering Group. In this project, I played a pivotal role in automating security-related tasks using PowerShell and Azure CLI. This automation not only reduced the margin of error but also significantly accelerated the security compliance process. My code for automating security scans and vulnerability assessments allowed us to proactively identify and rectify potential security weaknesses, ensuring a more robust and secure system.

- Azure Role-Based Access Control (RBAC) Enhancement:

  Another notable project involved enhancing Azure RBAC at the same organization. I took the lead in refining and expanding RBAC policies, ensuring that users and applications only had the minimum required permissions. This was instrumental in reducing the attack surface and improving the security posture of our Azure environment.

- Security-Centric Documentation:

  In various roles, I've consistently contributed to creating security-centric documentation for internal teams and stakeholders. I understand that clear and well-structured documentation is essential for implementing security policies effectively. By creating comprehensive guides and SOPs, I've ensured that security best practices are readily accessible and easy to follow.

- Open Source Security Contributions:

  While not a maintainer, I actively contributed to open-source projects in GitHub, focused on security and automation. I enhanced existing code and created new ones that have been utilized by the community. This open-source involvement aligns with my commitment to sharing knowledge and collaborating on security best practices.

- Security-First DevSecOps Integration:

In my role DevOps engineer/ cloud admin, I've championed the integration of security into the DevOps pipeline. By automating security checks and scans in the CI/CD process, we've made security an integral part of development. This proactive approach not only identifies vulnerabilities early but also fosters a culture of security-conscious development.

In summary, my contributions to security products and projects have spanned client onboarding, automation, access control, documentation, open-source collaboration, and DevSecOps integration. These experiences have provided me with a holistic understanding of security's multifaceted nature and the pivotal role it plays in software engineering.

Outline your thoughts on security in software engineering. What are the priorities that should be considered?

Security in software engineering is paramount. The top priorities should include data protection, secure coding practices, regular vulnerability assessments, and adherence to industry standards like FISMA and FedRAMP. The goal is to create robust, reliable software that safeguards data and user privacy.

What kinds of software have you worked on before? Which operating systems, development environments, languages, databases?

Throughout my career, I've had the privilege of working on a diverse range of software projects, each presenting unique challenges and opportunities for growth. Here's an overview of the kinds of software I've worked on, along with the associated operating systems, development environments, languages, and databases:

- Cloud-Based Solutions:

I've actively contributed to the development of cloud-based solutions, particularly in the Azure environment. These solutions encompassed a wide array of cloud services and technologies.

  - Operating Systems: Primarily Windows and Linux-based environments.
  - Development Environments: Azure DevOps, PyCharm, and Visual Studio Code.
  - Languages: Primarily PowerShell and Python for scripting and automation.
  - Databases: Azure SQL Database and MySQL for data storage and retrieval.

- Automation Scripts:

Automation has been a key focus in many of my roles. I've developed scripts to automate various tasks, ranging from system provisioning to security checks.

- Applications:

I've been involved in the implementation of AI applications, which involved creating solutions for AI-based automation and data analysis.

  - Operating Systems: Windows and Linux for AI model training and deployment.
  - Development Environments: Azure Databricks,Azure Cognitive Service, Azure App services, Flask
  - Languages: Python for AI development, utilizing openAI and LLM

- Database Management:

I've worked on projects involving database management and data retrieval, primarily in the context of Azure databases.

Open-Source Contributions:
While not software development per se, I've actively contributed to open-source projects, enhancing existing scripts and creating new ones for various automation tasks.

- Operating Systems: Diverse, as open-source projects span various platforms.
- Development Environments: Typically Git and text editors for code contributions.
- Languages: Contributions have been in languages specific to the projects, including Python and PowerShell.

In summary, my software development experience encompasses cloud solutions, automation, AI applications, database management, open-source contributions, and foundational knowledge of embedded systems. This diverse exposure has enriched my skill set and provided me with a broad perspective on software engineering.

Would you describe yourself as a high-quality coder? Why?

I take pride in knowing that I have a lot to learn when it comes to coding. I haven't had much jobs requiring heavy coding, hence I'm still practicing and learning gradually with my hobbies. This stage allows me to be committed to quality, and continuous learning as a novice coder.

Outline your thoughts on quality in software development. What practices are most effective to drive improvements in quality?

Quality in software development involves rigorous testing, code reviews, adherence to coding standards, and continuous integration and delivery. It's important to adopt Agile methodologies to drive quality improvements.

What is your most senior role in a software engineering organization? Describe your span of control, and the diversity of products, functions, and teams you led.

My most senior role in a software engineering organization was as a "Computer Scientist" at the 76 Software Engineering Group. This position afforded me the opportunity to exercise leadership, manage diverse functions, and oversee multiple assigned task and products. Here, I'll describe the scope and depth of my responsibilities:

Role: Cloud admin / Azure DevOps Engineer

Span of Control:
I had a significant span of control, with responsibility for several critical areas:

- Azure Cloud Administration: I managed the Azure cloud environment, including resource provisioning, network configuration, and security settings. This included overseeing the deployment of virtual machines, networking, and storage resources.

- Security Integration: In this role, I played a pivotal role in integrating security practices into the development and operational processes. This encompassed conducting security assessments, vulnerability scans, and enforcing secure coding practices.

- Automation and Scripting: Automation was a core focus, and I led the development of automation scripts to streamline various operational tasks. This included automating resource provisioning, security checks, and routine maintenance.

- Cross-Functional Collaboration: Collaboration was vital in this role, and I worked closely with cross-functional teams to implement cloud solutions effectively. This involved close collaboration with system administrators, network engineers, and developers to ensure that all components integrated seamlessly.

Diversity of Products and Functions:
My role as a Computer Scientist encompassed a wide array of products and functions:

- Azure Cloud Solutions: I was responsible for managing Azure cloud resources for various projects, including diverse cloud-based applications.

- Security and Compliance: I played a critical role in ensuring security and compliance by conducting vulnerability assessments, security audits, and policy enforcement.

- Automation and Scripting: I led the development of automation scripts (eg: creating OU structures) that were used to enhance operational efficiency and consistency across various functions.

- Resource Provisioning: I oversaw the provisioning of virtual machines, network resources, and storage accounts, catering to a range of applications and services.

- Vulnerability Management: In the realm of security, I led the team in identifying vulnerabilities and implementing strategies to remediate them promptly.

Leadership and Team Management:
I led and coordinated a diverse team of engineers and specialists, ensuring that all functions were aligned to meet organizational objectives. This included:

- Security Team: I worked closely with security experts to implement security best practices, conduct audits, and create secure environments.

- DevOps Team: Collaboration with the DevOps team was pivotal in automating deployment pipelines, ensuring efficient development practices, and integrating security into the CI/CD process.

- Cloud Administration Team: My oversight extended to the cloud administration team, ensuring that cloud resources were effectively provisioned and managed.

Outline your thoughts on open-source software development. What is important to get right in open source projects? What open source projects have you worked on? Have you been an open source maintainer, on which projects, and what was your role?

Open source projects should emphasize collaboration, transparency, and clear documentation. While I haven't been an open source maintainer, I've actively contributed to open source projects, particularly in automation and scripting via my hobbies/projects.

How comprehensive would you say your knowledge of a Linux distribution is, from the kernel up? How familiar are you with low-level system architecture, runtimes, and Linux distro packaging? How have you gained this knowledge?

I possess a good understanding of Linux distributions, from the kernel up. I've gained this knowledge through hands-on experience in administering Linux systems esxi hosts (ACAS server in Vsphere), raspberry pi robotic projects and azure cloud platform.

Describe any experience you have with low-level embedded systems engineering, on Linux or other embedded operating systems.

While my focus has primarily been on cloud and software engineering, I have a foundational understanding of low-level embedded systems, especially in the context of IoT devices.

Outline your thoughts on documentation in large software projects. What practices should teams follow? What are great examples of open source docs?

Effective documentation practices involve clear, well-structured documentation that is accessible to both developers and end-users. Excellent examples of open source documentation can be found in projects like Python.

Outline your thoughts on performance in software engineering. How do you ensure that your product is fast?

Ensuring software performance involves optimizing code, using efficient algorithms, and profiling for bottlenecks. Continuous performance testing and monitoring are crucial.

Describe any experience you have with devsecops. Which practices are effective, and which are overrated?

DevSecOps has played a pivotal role in my software engineering journey, and I've gained substantial experience in this domain. DevSecOps embodies a proactive approach to integrating security into the entire software development lifecycle. Here's a detailed account of my experience with DevSecOps, along with insights into effective practices and those that might be overrated:

Experience with DevSecOps:
In my roles as a Computer Scientist and Cyber Surety/Virtualization Engineer, I actively championed the integration of security practices into the DevOps pipeline. Here's an overview of my experience:

- Security Automation: I've been instrumental in automating security checks and scans within the CI/CD pipeline. This includes implementing automated vulnerability assessments and security code reviews. This proactive approach ensures that vulnerabilities are identified and remediated early in the development process.

- Continuous Monitoring: Continuous monitoring of applications and infrastructure is a key DevSecOps practice I've emphasized. This involves real-time tracking of security-related events and threats, allowing for immediate responses to security incidents.

- Security as Code: I've advocated for the practice of "security as code," where security policies and controls are defined and implemented in code. This enables automated security checks and ensures that security configurations are consistent and auditable.

- Container Security: With experience in containerization platforms like Docker and Kubernetes, I've integrated container security into the pipeline. This includes vulnerability scanning of container images and runtime security.

- Collaboration: DevSecOps is not solely a technical practice but also a cultural shift. I've fostered collaboration between development, operations, and security teams to ensure shared responsibility for security. This involves regular discussions, knowledge sharing, and joint ownership of security-related tasks.

Effective Practices:
The following DevSecOps practices have proven to be highly effective in my experience:

- Automation: Automating security checks, vulnerability assessments, and incident response tasks is highly effective in identifying and addressing security issues quickly and consistently.

- Continuous Monitoring: Real-time monitoring and threat detection are invaluable for identifying and mitigating security incidents promptly.

- Collaboration: Fostering a culture of collaboration and shared responsibility for security across teams is key. This ensures that security is everyone's concern.

Overrated Practices:
While DevSecOps is an essential paradigm, some practices might be overrated or less effective in certain contexts:

- Overemphasis on Tools: Overreliance on security tools without a corresponding focus on processes and culture can be counterproductive. Tools are enablers, but they should complement a broader strategy.

- Compliance-Centric Approaches: While compliance is essential, a compliance-centric approach can sometimes overshadow actual security. Meeting regulatory requirements should not be the sole goal. For example, each software development team requires specific versions of various software to build their environment, so instead of relying on external download sites with potential security risks, leveraging Azure Blob Storage and tools like Azure Storage Explorer offers a more efficient, secure, and centralized approach for managing and distributing software within different virtual environments

Blind Adoption of Security Controls: Implementing security controls without a risk-based assessment can lead to unnecessary complexity and hinder development speed. It's important to tailor security controls to the specific needs and risk profile of the application. For example, assign team leads with dual controls for Azure Subscriptions and Resource Groups to reduce hinderance in platform deployments.

In conclusion, my experience with DevSecOps has reinforced the importance of integrating security into the software development lifecycle. Effective practices include automation, continuous monitoring, and collaboration. While DevSecOps is essential, it's crucial to strike a balance and avoid overemphasizing specific practices that may not align with the organization's unique context and goals.

What security frameworks, control sets, or standards are you familiar with, and at what level of familiarity?

My familiarity with these security frameworks and standards is at a level that allows me to effectively apply their principles, assess compliance, and guide security practices within organizations. While I may not be a certified auditor for each standard, I have practical experience in aligning systems and processes with their requirements. This familiarity ensures that security measures are implemented in accordance with recognized industry standards, helping to safeguard systems and data against potential threats and vulnerabilities.

Familiar with Security Frameworks and Standards:

NIST (National Institute of Standards and Technology) Cybersecurity Framework:
- Familiarity: I have a strong understanding of the NIST Cybersecurity Framework, which provides a comprehensive approach to managing and reducing cybersecurity risk. I have applied NIST principles to assess and improve the security posture of systems.

- CIS (Center for Internet Security) Controls:
  Familiarity: I'm well-versed in the CIS Controls, a set of best practices that help organizations defend against the most pervasive cyber threats. I've used these controls to implement security measures in alignment with industry standards.

- ISO/IEC 27001 (Information Security Management System):
  Familiarity: I have experience with ISO/IEC 27001, the international standard for information security management. I've participated in audits and assessments to ensure compliance with ISO 27001 requirements.

- FISMA (Federal Information Security Modernization Act):
  Familiarity: With my background in government and military environments, I have a strong understanding of FISMA compliance and its impact on information security in the federal sector.

- FedRAMP (Federal Risk and Authorization Management Program):
  Familiarity: I am familiar with FedRAMP, which sets security standards for cloud products and services used by the U.S. government. I've worked on projects aimed at achieving and maintaining FedRAMP compliance.

What security tooling do you have experience in and where have you found them useful for driving value?

I've gained experience with various security tools throughout my career, which have proven invaluable in enhancing security measures and driving value in different organizational contexts. Here, I'll outline the security tools with which I have experience and highlight their utility in creating a more secure environment:

Security Tools I Have Experience With:

Vulnerability Scanners (e.g., Nessus):
  - Experience: I've used vulnerability scanners to identify and assess vulnerabilities in systems and networks.
  - Value: These tools help in proactively identifying security weaknesses, allowing for timely remediation and reducing the risk of exploitation.

2. Security Information and Event Management (SIEM) Systems (e.g., Splunk):

- Experience: I've worked with SIEM systems to collect, analyze, and correlate security event data.
  - Value: SIEM tools provide real-time insights into security incidents.

3. Intrusion Detection and Prevention Systems (IDS/IPS) (e.g., ForcePoint, Wireshark):
  - Experience: I've implemented and configured IDS/IPS systems to monitor network traffic.
  - Value: IDS/IPS tools are essential for identifying and preventing malicious activities and attacks on the network.

4. Security Information Sharing and Analysis Centers (ISACs):
  - Experience: I've engaged with ISACs to access threat intelligence and share security information.
  - Value: ISACs provide valuable insights into emerging threats and vulnerabilities, enabling proactive defense.

5. Firewalls and Network Security Tools (e.g.,Cisco ASA):
  - Experience: I've configured and managed firewalls and network security appliances.
  - Value: These tools are crucial for controlling inbound and outbound traffic, ensuring network security and data protection.

10. Secure Configuration Management Tools (e.g., Ansible, Puppet):
  - Experience: I've used configuration management tools to enforce secure configurations.
  - Value: These tools ensure that systems are hardened and adhere to security best practices.

Education:

How did you rank in your final year of high school in mathematics? Were you a top student? On what basis would you say that?

In high school, my performance in mathematics was consistently remarkable, largely due to my dedicated involvement in afterschool exam prep classes. With the guidance and motivation provided by my Aunt, who was a teacher, I consistently ranked among the top students, often holding one of the top two positions in the class until the 4th form.

The key factor behind my academic excellence was the unwavering support and encouragement I received from my Aunt. Her passion for education and her commitment to my academic growth played a pivotal role in shaping my early educational journey.

However, as circumstances evolved and my Aunt pursued her master's degree in education, there was a noticeable shift in my academic focus. With her physical absence, I gradually became more socially oriented, and my dedication to academics waned.

This transition marked a period of personal growth and exploration, as I ventured into more social interactions and diverse experiences. While I may have temporarily shifted my priorities, the foundation of academic excellence instilled during those formative years continued to influence my academic and personal development. It served as a testament to the importance of guidance, support, and a strong educational foundation.

How did you rank in your final year of high school, in your home language? Were you a top student? On what basis would you say that?

While I may not have held the absolute top position in my class, I consistently ranked among the top performers. The reason behind this continued high performance was the strong foundation that I had built in my early years. I had received dedicated support and mentorship, especially from my Aunt, who was a teacher, and this played a pivotal role in honing my skills and nurturing my passion for education.

By the time I reached my final year of high school, I had not only retained the knowledge and skills acquired over the years but had also continued to develop and refine them. This ranking was based on a combination of factors, including my performance in regular assessments, CAPE examinations, and active participation in class discussions.

Please state your high school graduation results or university entrance results, and explain the grading system used.

I successfully completed my High School/Sixth Form College education, passing all my CAPE subjects. The grading system employed was similar to the A-F scale, denoted as Grade I-VI. While I excelled in most subjects, achieving Grade I and II, I encountered challenges in math, where I initially struggled and failed my first attempt. However, on the second attempt, I managed to secure a Grade III, the lowest passing grade. My strong performances were evident in Infotech and Sociology. My initial difficulties with math were primarily attributed to a lack of interest in the subject and its perceived real-world applications.

Can you make a case that you are in the top 5% in your academic year, or top 1%, or even higher? If so please outline that case. Make reference where possible to standardized testing results at regional or national level, or university entrance results. Please explain any specific grading system used.

While I may not claim to have consistently ranked in the top 1% of my academic year, I can certainly make a case for consistently performing in the top 5% or even higher. My academic journey has been marked by strong performances in various subjects, as evidenced by my attainment of Grade I and II in the CAPE subjects during my high school/sixth form college education.

It's important to note that the grading system I encountered was similar to the A-F scale, with Grade I denoting the highest level of achievement. Achieving Grade I and II in the majority of my subjects demonstrated a high level of academic proficiency. These grades were based on rigorous assessments and examinations, which served as standardized tests at the regional and national levels.

While my journey included a brief challenge in math, I overcame this obstacle and ultimately secured a passing grade of Grade III, illustrating my commitment to improvement and my ability to excel in subjects that I was passionate about. Moreover, my successes were not limited to the classroom; I also performed exceptionally well in standardized university entrance exams, which allowed me to bypass or CLEP a few elective classes.

What sort of high school student were you? Outside of class, what were your interests and hobbies? What would your high school peers remember you for?

In high school, I was more of an introvert who occasionally wore the mask of an extrovert. This duality stemmed from the unique dynamics of our small island community, where the population was close-knit, and

everyone seemed to know one another. My classmates and peers would likely remember me for my ability to strike a balance between being sociable and laid-back, fostering a comfortable environment for everyone.

My interests and hobbies during those years reflected my natural curiosity and eagerness to learn. I developed a passion for reading early on, and our household boasted a collection of encyclopedias, including the renowned Britannica set. This treasure trove of knowledge fueled my thirst for information and exploration.

At an early age, I was introduced to the world of technology when I received my first eMachine desktop. This pivotal moment sparked my journey into the realm of hardware and software. I began by swapping out computer components, gradually delving into the intricacies of assembling and disassembling a computer.

This fascination with technology extended to the realm of music. I quickly learned how obtain and install a cd-rw drive to download, burn, and sell MP3 CDs, which eventually led me to explore the world of DJing. Armed with a vintage Dell Inspiron laptop and VirtualDJ software, I embarked on my musical journey, experimenting with selling my own reggae/dancehall/soca mixtapes.

One defining characteristic of my high school years was my independence. I exhibited a strong drive to acquire new skills, often seeking to learn from those around me and adopting practices I found admirable. This proclivity for self-improvement has been a consistent theme in my life.

Which university and degree did you choose? What other universities did you consider, and why did you select that one?

I strongly considered Cornell University, initially drawn to its renowned reputation in the academic world. However, as I delved deeper into my university options, the practical considerations, particularly the cost of tuition and housing, came into focus. This prompted me to explore other universities, including Cameron University.

Cameron University became a prominent contender for my education primarily through the experiences and recommendations of my fellow classmates who had been recruited by the institution. Their firsthand experiences and insights played a decisive role in my decision-making process.

When it came to selecting my degree, Computer Science emerged as my field of choice. The decision was rooted in the recognition that Computer Science represented one of the most challenging disciplines within the IT field. I understood choosing this field would set me apart and open doors to unique opportunities. Despite not fully comprehending the practical applications of this degree at the time, I embraced the challenge, knowing that the journey would be a significant steppingstone toward my future.

Ultimately, the decision to choose Cameron University and pursue a degree in Computer Science was a blend of academic prestige and practical considerations.

Overall, what was your degree result and how did that reflect on your ability? Please help us understand the grading system for your results.

I achieved a Bachelor of Science in Computer Science with Math minor, which was a testament to my ability to excel in a challenging field. The grading system employed was based on a traditional A-F scale, where I consistently earned high grades in all of my STEM subjects, reflecting my academic proficiency. My adolescent

struggles with CAPE mathematics ultimately contributed to my ability to earn all As in both Calculus I and II during my college years.

During all of your education years, from high school to university, can you describe any achievements that were truly exceptional?

My educational journey has been marked by several exceptional achievements that have contributed to my growth and proficiency. During my Sixth Form years, I encountered significant challenges in CAPE mathematics, which, rather than being a hindrance, became a catalyst for my subsequent As in Calculus I and II in college.

Before my transition to college, during Sixth Form years, I gained a profound understanding of the delicate balance between work, life, and academics while providing IT helpdesk support for a Hotel call center. This experience not only honed my technical skills but also taught me valuable lessons about time management and the importance of balancing multiple responsibilities.

One of the standout moments in my college journey was during my first computer science-focused semester, where I delved into the fascinating world of robotics. This intro into robotics ignited my curiosity and allowed me to witness firsthand the real-world applications of my degree. It was a pivotal moment that affirmed my decision.

In the culmination of my college education, I was part of a software team working on a project with local military significance. Our task involved developing code for missile launch rocket aiming systems, a complex and crucial endeavor. This project required close collaboration with professionals from various IT fields and demanded seamless teamwork and coordination.

Simultaneously, we embarked on another project that involved creating a fully functional veterans' job-seeking website. Here, I had the opportunity to apply my CSS skills using Dreamweaver, contributing to the project's success. These experiences not only showcased my technical abilities but also underscored my adaptability and capacity to work effectively in diverse and interdisciplinary teams.

In essence, my journey from high school to university was marked by a series of exceptional achievements, each contributing to my personal and professional growth. These experiences have shaped me into an adaptable, resilient, and highly motivated individual, well-prepared for most challenges.

What leadership roles did you take on during your education? Did you conceive of, and drive to completion, any initiatives outside of your required classwork?

During my educational journey, I actively embraced leadership roles and initiated projects that extended beyond my required coursework. Notably, I served as both the Vice President and President of the Caribbean and International Student Campus Organizations. These roles afforded me the opportunity to lead and inspire a diverse group of students from various backgrounds, fostering a sense of community and unity.

Context

What gets you most excited about this role?

What excites me most about this role is the opportunity to work at the intersection of open source, cloud infrastructure, and security. It offers a chance to make meaningful contributions to projects that are not only technically stimulating but also have a significant global impact. The dynamic nature of the technology landscape and the prospect of innovating in a company with a mission and culture are that is genuinely invigorating. I look forward to applying my expertise to enhance the security of open source and cloud-based systems, helping to maintain a leadership position in this space.