Keith Daniel Tan

Las Vegas, NV
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725-500-3057
CyberCorps® Scholarship for Service (SFS) Scholar

Citizenship: *Yes*

Special Hiring Authority: *Public Law 113-274 Section 302*

Federal Experience: *No*

SKILLS SUMMARY:

I am a results-driven cybersecurity and software engineering professional with hands-on experience in penetration testing, malware analysis, and database security. My work includes designing secure systems and applications, protecting sensitive data, and ensuring compliance with federal cybersecurity regulations. With a strong foundation in C++, Python, SQL, and JavaScript, I develop scalable solutions that address security vulnerabilities and improve system performance. I thrive in fast-paced environments, delivering innovative solutions and collaborating with cross-functional teams.

- **Penetration Testing & Vulnerability Assessments:** Performed security tests on internal and external systems, identifying and patching vulnerabilities to improve defenses. Conducted real-world attack simulations to assess resilience.
- **Database Security Implementation:** Designed and implemented an encrypted database solution for Cyber Clinic, enabling secure data access and compliance with FISMA regulations.
- **Project Recovery and Delivery:** Revived a stalled database project, deploying a functional MVP within days. Streamlined administrative tasks and enabled public verification features for members.
- **Compliance and Standards Integration:** Integrated NIST 800-53 and FIPS 140-2 standards into development workflows, ensuring security measures met federal guidelines.
- **Leadership and Mentorship:** Trained junior developers on secure coding standards and cybersecurity practices, improving team knowledge and strengthening code security.
- **System Hardening and Defense Strategies:** Developed and enforced security baselines, reducing vulnerability exposure by 20%. Improved incident response procedures and enhanced monitoring systems.
- **Project Leadership and Team Management:** Oversaw a 5-member development team during Cyber Clinic's database rebuild, delivering ahead of schedule and under budget while meeting security standards.
- **Automation and Reporting Tools:** Automated vulnerability scans and reporting processes.

EMPLOYMENT HISTORY

Cyber Clinic
SFS Scholar and Intern
Aug 2024 – Present
Salary: $6,000
Hours per week: 20

As an intern at the Cyber Clinic, I played a key role in strengthening the organization's security posture by developing and deploying a secure database system. I focused on enhancing data encryption standards to meet federal compliance requirements and conducted penetration tests to identify vulnerabilities. I also led internal training sessions to educate developers on secure coding practices and improve overall team efficiency.

- Delivered a critical database project ahead of schedule, implementing a secure system with FISMA-compliant encryption and enabling streamlined access for over 100 users.
  - Designed automated scripts to monitor database integrity and detect unauthorized access attempts.
  - Reduced database vulnerabilities by 35% through regular security assessments and penetration testing.
  - Coordinated with stakeholders to align security protocols with NIST standards and FIPS 140-2 compliance.
- Conducted penetration tests and security audits, identifying vulnerabilities and applying fixes to reduce risks and enhance compliance with federal standards.
  - Trained 5 developers in secure coding practices, achieving a 30% reduction in vulnerabilities.
- Designed and implemented automated vulnerability scanning tools, saving 20% of development time and improving monitoring efficiency.

NexOasis
Team Lead & Full Stack Web Developer Intern
Jan 2024 – Aug 2024
Salary: $18/hr
Hours per week: 40

In this role, I led a team of five interns to deliver a secure and scalable web application designed for legal documentation. I was responsible for developing the backend architecture, implementing cryptographic security features, and optimizing database performance. My contributions resulted in increased application performance and reliability while ensuring compliance with security protocols.

- Coordinated a 5-member team to deliver a cryptographic backend for a legal documentation platform, ensuring compliance with security protocols.

- - Built AES-encrypted APIs to secure data transfer between client and server, preventing data leaks.
    - Documented and optimized backend processes, increasing data processing speed by 25%.
  - Developed and optimized a database-driven website using PHP, MySQL, and JavaScript, improving reliability and scalability by 40%.
    - Designed an admin dashboard with role-based access control for enhanced security and management.
    - Created automated scripts to log and monitor security breaches, improving response time by 20%.

University of Nevada, Las Vegas
Teaching Assistant
Jan 2024 – Aug 2024
Salary: $20/hr
Hours per week: 10

Provided assistance to students in programming assignments, conducted lectures on coding practices, and mentored students to develop their debugging and optimization skills. I worked closely with faculty to create lesson plans and exercises that reinforced fundamental programming concepts.

- Mentored 120 students in C++ programming and debugging techniques, increasing pass rates by 25%.
  - Conducted workshops on data structures, algorithms, and program optimization, improving project outcomes.
  - Developed practice assignments and provided code reviews to reinforce learning concepts.

University of Nevada, Las Vegas
Undergraduate Researcher
May 2024 – Aug 2024
Salary: $3,000
Hours per week: 20

Conducted research and development for drone simulation environments using Unreal Engine 5. I contributed to algorithm design for drone controls and analyzed test data to refine performance metrics and improve responsiveness.

- Designed and implemented simulation environments for drone control testing in Unreal Engine 5, facilitating research advancements.
  - Created scripts to simulate drone flight patterns and environmental interactions, improving test accuracy.
  - Tested and analyzed drone behavior data, identifying performance improvements and refining control algorithms.

ACCOMPLISHMENTS

- Recognized for developing and implementing a secure database system at Cyber Clinic, meeting federal compliance requirements and reducing vulnerabilities by 35%.
- Successfully led a team of 5 interns to deliver a secure web application, improving performance and reliability by 40% through optimization techniques.
- Automated vulnerability scans and reporting processes, saving 20% development time and increasing accuracy.
- Trained over 120 students in programming concepts, improving pass rates by 25% and reinforcing debugging techniques.
- Conducted drone simulation testing, improving algorithm performance and responsiveness through data analysis and optimization.

COMPUTER SOFTWARE

- Experienced with cybersecurity tools including Nmap, Wireshark, Burp Suite, Metasploit, Snort, Kali Linux, Nessus, OpenVAS, Aircrack-ng, John the Ripper, Autopsy, Splunk, and Security Onion for penetration testing, vulnerability scanning, and network monitoring.
- Proficient in C++, Python, SQL, JavaScript, PHP, MySQL, HTML/CSS, and Unreal Engine 5.

ADDITIONAL TRAINING

- Capture the Flag (CTF) Competitions – Participated in DEFCON and Tracer FIRE 12, focusing on penetration testing, network exploitation, and incident response techniques (10+ hours combined).
- Secure Coding Practices – Hands-on training in preventing vulnerabilities such as SQL injection, XSS, and CSRF attacks (8 hours).

EDUCATION

BS - Computer Science, University of Nevada, Las Vegas, NV *(2023 – Present)*
GPA: 3.8

- Concentration: Information Assurance (Cybersecurity)
- Relevant Coursework: Cybersecurity Concepts and Practice, Introduction to Machine Learning, Data Structures and Algorithms

Pre-Nursing Program, University of Nevada, Las Vegas, NV *(2019 – 2023)*

- Completed foundational coursework in anatomy, physiology, microbiology, and patient care practices.

HONORS AND AWARDS

- **Dean's List** – Spring 2020, Spring 2024 (University of Nevada, Las Vegas)
- **High School Academic Excellence Award** – Maintained a GPA above 3.9 throughout high school (2015–2019).
- **Honor Roll Recipient** – Recognized as a high-achieving student for 7 out of 8 semesters in high school, earning mostly A's and one B in senior year.
- **Dean's Honor List** – Multiple semesters for maintaining outstanding academic performance in college coursework.

VOLUNTEER WORK & COMMUNITY INVOLVEMENT

- **GenCyber Escape Room Setup** *(Summer 2024)* – Assisted in designing and setting up an interactive cybersecurity-themed escape room for the Cyber Clinic's GenCyber program. Provided hands-on learning experiences to educate students about cybersecurity concepts, problem-solving, and teamwork.

PROFESSIONAL ASSOCIATIONS

ACM – Association for Computing Machinery (Student Member)
CyberCorps® SFS – Scholarship for Service Program (Recipient)

REFERENCES:

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