Fırat Bilgen

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Summary

I am a final-year computer engineering student with a strong interest in penetration testing. I have knowledge of penetration testing methodologies and am currently expanding my expertise in web penetration testing. Additionally, I have experience in software design patterns, SOLID principles, and parallel programming.

I have a solid foundation in core computer science topics such as algorithms, data structures, operating systems, and networks. With this strong base, I believe I can quickly adapt to new technologies and concepts.

Experience

STM-Cyber Security Intern July 2024 - August 2024

During my internship, I worked on penetration testing methodologies, web penetration testing, and wireless network penetration testing. I gained knowledge and experience in preparing finding reports and documenting penetration testing services. Specifically, I learned how to structure the findings, explain each vulnerability, how they are scored, and how reporting processes are managed systematically. I gained hands-on experience in creating penetration testing reports and presenting findings in a clear and concise manner.

Certifications

360° Software Specialist Training (SiliconMade Academy)

I received training in business analysis, project management, and UI/UX design.

Cyber Security Specialist Training (SiliconMade Academy)

I received training in Web Penetration Testing, Local Network Penetration Testing, and Wireless Network Testing. Additionally, I learned how a process starts, how tasks progress, and other similar topics.

Projects

- **Companion App Vulnerabilities and Simulations in IoT Security (Capstone Project):** This project aims to identify vulnerabilities in Companion apps affecting IoT devices. The project involves creating a test environment that simulates the behavior of IoT devices using QEMU, allowing security flaws to be analyzed and identified without needing physical devices.
- **Parallelization of Edge Detection Algorithms:** In this project, the performance of the Robert edge detection algorithm was improved by parallelizing it on GPUs using the CUDA library, on CPU physical cores using MPI, and with multi-threading (OpenMP). The project evaluated the acceleration and efficiency of different parallelization techniques.
- **Spell Check Algorithm:** A spell checking system developed using a graph based on the Turkish Q keyboard layout and Levenshtein distance algorithm. The system detects user errors and provides correct suggestions, taking Turkish keyboard and character similarities into account.

Education

2022 - 2025 **Ankara Yıldırım Beyazıt University** Bachelor's Degree in Computer Engineering

Skills

Languages and Frameworks: Java, C/C++, SQL (Postgres), JavaScript, HTML/CSS, Php, MPI, OpenMP, Spark, CUDA
Computer Science: Data Structures, Algorithms, SOLID Principles, Design Patterns, Parallel Programming, Operating Systems, Networks, Active Directory
Security: Web Penetration Testing, Local Network Testing, Google Dorking, Burp Suite, Shodan, Nmap, Nuclei, PsExec
Personal Skills: Analytical Thinking, Teamwork, Strong Communication, Stress Management **Hobbies**: Playing Chess, Playing Basketball, Playing Computer Games