Jackson Cowdrey

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Security Engineer

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EDUCATION

Bachelor of Science in Computer Science   **Graduated: August 2022**
University of Texas at Dallas, Richardson, TX   GPA: 3.5
Relevant Courses: *Advanced Algorithm Design and Analysis, Operating Systems Concepts, Database Systems, Software Engineering, C/C++ Programming in a UNIX Environment, Computer Architecture, Discrete Math for Computing II*

SKILLS

Programming Languages	Python, Java, C/++, JavaScript, Go, Bash, SQL
Tools & Technologies	AWS, Linux, Docker, Postman, Burp Suite, Wireshark, Git

PROFESSIONAL EXPERIENCE

Security Engineer Consultant   **July 2022 — Present**
Toyota Motor North America   *Plano, TX*

- Conducted static and dynamic analysis on Lexus and Toyota mobile applications using industry-standard tools such as apktool, jadx, frida, and objection, to identify and remediate security vulnerabilities.
- Conducted cloud-based security assessments of Toyota's AWS environments, including EC2, IAM, Lambda, and etc. and collaborated with development teams to implement remediation efforts, improving the overall security posture of the organization.
- Created detailed reports and presentations to communicate findings and recommendations to management and relevant stakeholders, using existing guidelines.
- Specialized in end-to-end (E2E) and out-car communication security, to secure Toyota's fleet of connected vehicles.
- Stayed up-to-date with the latest security trends and technologies to ensure effective testing strategies, and to keep skills industry-relevant.

Electrical Engineering Intern   **May 2020 — August 2020**
Scarborough Engineering   *Fort Worth, TX*

- Part of a 5-member team that was responsible for substation facility design, implementation, and maintenance with budgets averaging $4,000,000 or more.
- Provided support to the lead Mechanical and/or Electrical Engineers in tasks such as part and assembly drawing/design or classification, engineering analysis and test, and support of proof-of-concept or final system testing.
- Performed routine tasks under close supervision using well-defined standards and procedures.

Pro Shop Attendant   **April 2017 — January 2020**
Whitestone Golf Club   *Benbrook, TX*

- Responsible for POS system used to reserve tee times for guests, check in guests upon their arrival, and accepted payment for golf and merchandise transactions daily, of more than $3,000 in sales.
- Resolved discrepancies as it pertained to customer affairs, and provided accommodations to guests to meet changing demands and requirements.
- Accountable for more than 100 customers on site at a time, and all daily operations when managerial presence was absent.

PROJECTS

Toyota TMNA PASTA Cyber Security Project   **January 2022 - May 2022**
UTDesign Capstone Project

- Worked with Toyota (TMNA), using their PASTA development platform, to further optimize security-measurement methods, and to provide internal feedback for the PASTA system.
- Adapted and optimized existing algorithms to work with Toyota's PASTA software suite, and lowered execution time for the secured boot process, while also attesting to the source of the software, making sure it was authentic to Toyota.
- Validated that the software that was loaded by vehicle ECUs was digitally signed and verified, to guarantee the authenticity and cryptographic integrity of the software.

CompareStocks | Python, JavaScript, canvasJS, Flask, marketstack API   **February 2021**
HackUTD VII Finalist

- Utilized languages such as Python and JavaScript to create a web application that displays different types of stocks in real time.
- Aggregated data via the marketstack API and visualized stock information from extensive data with about 70+ stock exchanges, 170.000+ stock tickers from more than 50 countries, as well as 750+ market indices.
- Deployed a Flask web server via GitHub Pages, which was actively maintained for the UT Dallas HackUTD VII event.