

DEVIN PATEL

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Availability: July 2024 - December 2024

EDUCATION

NORTHEASTERN UNIVERSITY

Boston, MA

Bachelor of Science in Computer Science – 3.8/4.0 GPA

Sep 2022 – Expected May 2026

Relevant Coursework: Systems Security, Computer Systems, Algorithms & Data Structures, Object Oriented Design

Awards: Dean's List Fall 2023, Kickoff CTF 1st Place

Extracurricular Involvement: **NEU CTF Club** - Participated in the first CTF hosted by the club and placed 1st out of many peers. Now as an E-board member, I develop programs and challenges for the club's CTF competitions.

NU Collegiate Penetration Testing Competition Team - Competed alongside teammates against other schools in a penetration testing competition.

TECHNICAL SKILLS

Programming Languages: GoLang, Java, C, Python, C#, Kotlin, Rust

Skills: Linux, Git/VCS, Backend Development, Gin APIs, Postman, CAN bus, UDS, Data Structures and Algorithms, TDD, Cybersecurity, Reverse Engineering, Penetration Testing, Vulnerability Assessment, Network Security, Burp Suite, Ghidra

WORK EXPERIENCE

PENETRATION TESTER

Boston, MA

Khoury College of Computer Science

Sep 2023 – Feb 2024

- Identified a critical vulnerability in an university mobile application, was hired to perform a security audit of an internal university system
- Attempted many attacks (XSS, command injection, directory traversal, etc.) and discovered vulnerabilities
- Provided reports of my findings and ensured the efficacy of deployed patches

FREELANCE SOFTWARE ENGINEER

Groton, MA

Self-Employed

Aug 2017 – Present

- Develops numerous applications for clients with a variety of needs, from automation software to data analysis tools
- Designs innovative solutions to fit broad requirements from clients
- Collaborates with teams utilizing version control software like Git

PROJECTS

VGX - DIGITAL VEHICLE PERFORMANCE GAUGE FOR BMW F30

Dec 2023

- Designed a digital gauge to display info from a variety of sensors on the vehicle, using reverse-engineered 2015 BMW 328i CAN-BUS IDs and data format
- Developed and implemented software to sniff vehicle's PT-CAN for lateral/longitudinal acceleration values, engine speed, vehicle speed, crankshaft torque, wheel torque, and request boost pressure over UDS
- Created a frontend UI using the Ebitengine framework in **GoLang**, displaying the parsed values on a LCD display
- Currently designing a PCB, wiring harness, and enclosure to integrate into vehicle dashboard
- Finalizing a blog post detailing the intricacies of the project, project source code available on request

IPODWRAPPED - MUSIC LISTENING RECAP APPLICATION

Nov 2023

- Designed and implemented a **C** application for the iPod Classic that runs on the Rockbox firmware
- Displays the top 10 songs a user has played on their iPod with play count, similar to the layout of Spotify's "Wrapped"
- Employed the use of platform specific APIs available through the Rockbox Plugin API

TTCAPTCHASOLVER - TIKTOK CAPTCHA SOLVER API

Nov 2022

- Designed and implemented high-performance TikTok captcha solving API in **GoLang**
- Fully request based, downloads captcha images then uses image analysis to determine the proper positioning and uses a linear algorithm to generate accurate solution data