

Neil Mandir

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Education

Winston Churchill High School
4.5 wGPA

August 2022 - present
Class of 2026

Experience

Software and Hardware Engineer Intern

- Reduced ITAR testing time by 80% by developing multithreaded Python and Shell script to automate 16 different hardware and network tests using custom harness
- Identified hardware layer faults in all pre-production units using 5 independently developed Java applications
- Developed a Linux kernel patch fixing a clock issue impacting the MAC-PHY link; merged into the mainline kernel
- Developed and deployed staging unit for international remote DevOps CI/CD server
- Discovered and fixed design flaws with logic analyzers, oscilloscopes, firmware dumping, etc

SECO USA
Rockville, MD
June 2025 - Present

ALS Association Technical Volunteer

- ALS Association's Maryland Technical Representative
- Provide hands-on assistance and troubleshooting for assistive devices to ALS patients, supplementing the organization's primarily virtual support

ALS Association
Maryland
June 2025 - Present

Activities

E4USA Engineering Class

Awarded Best Project Design and Prototype

- Year long process of planning, research, rapid prototyping, and user feedback to solve a random teacher's real problem
- Selected by judges as best design and awarded stipend to produce production version of project

Winston Churchill High School
Aug 2023-June 2024

Kid Museum Teen Enrichment Pilot Program

Awarded Studio Design and Coding Award

- In 2 weeks designed, built, and finalized an interactive exhibit for the museum to gauge visitor sentiment discreetly
- Modified custom C++ Box2d physics engine to run more efficiently on Raspberry Pi for exhibit interactive graphics
- Special talks with heads of research and design at Fortune 500 companies

Bethesda Metro Center
Feb 2023 - Dec 2023

AI Scholars Program

- Summer intensive on ML project in Jupyter notebooks
- Leadership position in cohort projects and presentations
- Personal mentorship from Stanford + MIT alumni and graduate students

Inspirit AI
Summer 2022

Skills

Languages

- C++
- Embedded C
- Bash/Shell Scripting (Linux)
- Python
- Java/Kotlin
- Matlab
- Front End Languages (js, css)
- SQL

FCC Radio License (KD3BYV)

- Technician Class

Tools & Software

- Git
- Linux & FreeBSD
- Vim/NeoVim
- VisualStudio
- EasyEDA Desktop
- Autodesk Fusion 360
- Oscilloscopes
- Dsview/Sigrok/PulseView
- Digital Logic Analyzers
- Function Generators
- Microsoft Office Suite
- Excel - highly proficient

Relevant Courses

- AP Physics Electricity & Mag.
- AP Physics Mechanics
- Linear Algebra & Discrete Math
- AP BC Calculus

Hobbies

- Violin - 11 years
 - Maryland All-State (2024, 2025)
 - Young Artists of America 4 years
 - 9th Street Chamber Group
- Baseball - 10 years
 - KOA Waves travel team
- Varsity Cross Country - 3 Years

See Iuroxin.com for personal project portfolio (palm sized wave synth, wireless footpedal, and more)