

Neil Mandir

neil.t.mandir@gmail.com | Potomac MD | luroxin.com

Education

Winston Churchill High School

August 2022 - Present
Class of 2026

Skills

Languages

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

Relevant Courses

- AP Physics C Electricity & Magnetism
- AP Physics C Mechanics
- AP Physics 1
- Linear Algebra
- AP BC Calculus
- E4USA Engineering Design

Ham Radio License (KD3BYV)

- Technician Class

Tools & Software

- Git
- Vim/NeoVim
- VisualStudio
- EasyEDA desktop
- Autodesk Fusion 360
- Oscilloscopes
- Digital Logic Analyzers
- RF Spectrum Analyzers
- Blender
- DaVinci Resolve
- Inkscape
- GIMP/Photoshop
- Microsoft Office Suite
- Excel - highly proficient

Violin - 10 years

- Maryland All-State (2024, 2025)
- Young Artists of America 4 years
- 9th Street Chamber Group
- Midwest Clinic Competition (IL)
- MPTV studio recording
- MCPS Honors Orchestra
- Maryland Classic Youth Orchestra
- Potomac Valley Youth Orchestra
- Concert Master of HS Orchestra

Baseball - 10 years

- KOA Waves travel team
- Little League All-Star team
- Montgomery County Little League
- Rockville Baseball Association

Cross Country - 3 years

- Varsity XC team

Experience

Software and Hardware DevOPs Engineer Intern at SECO

- Work on DevOps infrastructure at SECO
- Independently write programs for testing SBCs (Single Board Computers)
- Work on bugfixes for custom linux kernels
- Interrogate hardware circuit design issues

SECO USA

Rockville, MD

June 2025 - Present

Technical Lead for Student Business

- Create specialized interactive hardware and software for a business expo competition; handle all business' technical and website needs

Tutti Tutors

Potomac, MD

March 2025 - Present

ALS Association Technical Volunteer

- ALS Association's Maryland Technical Representative
- Provide assistance and troubleshooting for ALS families in the Maryland-DC area

ALS Association

Maryland

June 2025 - Present

Apprentice of Kid Museum

- Educated Groups of students in STEM fields
- Aided in the creation of lesson plans and course design
- Prioritized the learning engagement of all students

Bethesda Metro Center

Bethesda, MD

June 2022 - December 2023

Lead of Asian Culture Club

- Independently led the Chinese Club at Cabin John Middle School
- Wrote lesson plans and directed students in learning
- Weekly meetings and preparation for live performance by club members

Cabin John Middle School

Potomac, MD

January 2024 - June 2024

STEM Activities

E4USA Engineering Class

Awarded Best Project Design and Prototype

- Competed with peers to develop a product
- Year long process of planning, research, rapid prototyping, and user feedback
- Selected by judges as best design
- awarded a stipend to bring prototype to life

Winston Churchill High School

August 2023-June 2024

Kid Museum Teen Enrichment Pilot Program

Awarded Studio Design and Coding Award

- Small group chosen via competitive application
- Weekly STEM projects expanding technical capabilities
- Special talks with heads of research and design
- Summer long team collaborated and designed project build intensive

Bethesda Metro Center

February 2023 - December 2023

GEMS Engineering Summer Program

- Selective application process
- Participated in peer-led discussion and projects
- Guided by Walter Reed Institute and Research mentors
- One-on-one guidance from researchers of the U.S. Department of Defense

AEOP, Walter Reed Institute

Summer 2021

AI Scholars Program

- Summer intensive
- Leadership positions in cohort projects and presentations
- Guidance from Stanford + MIT alumni and graduate students
- Prepared a presentation on group project

Inspirit AI

Summer 2022

Research

SARC Research Competition

Developed and wrote research proposal to develop an affordable, non-invasive environmental data probe utilizing bio acoustics and animal sound Fourier transformation to calculate biodiversity within an ecosystem

Columbia University

Spring 2023

Science Fiction Influences

Research project on how SciFi influences the modern world. This project took approximately a year to complete and consisted of visiting space exhibits, extensive online research and interviewing astronaut Jeffery Hoffman. The project culminated in a presentation to my community.

Congregation-wide Presentation

August 2021

Fiction to Fact: A Scientific Journey of Communication

Created a multimedia website presentation of historical topic of interest including process paper and annotated bibliography. Earned “superior” and “excellent” rating across 14 different categories from judges.

National History Day Competition

March 2021

Personal Projects

Handheld Digital Analog Waveform Generator

Single board and pocket sized 5x7cm single channel waveform generator. Utilizes an atmega328p, several potentiometers, and a capacitive interface to adjust an output analog waveform.

Mechanical Foot Pedal Interface

3D printed bluetooth foot pedal to aid in digital music page turning. Utilizes an ESP32 microcontroller to send a custom bluetooth signal to a device upon mechanism depression. Uses low cost materials with an accessible design.

School Workflow Balance Program

Web-based JS client which retrieves school assignment data from Instructure Canvas and displays them in an organized, coherent manner. Interfaces with the server's GraphQL API and other methods.

Personal website: Luroxin.com

A personal brand website portfolio. Features a variety of my projects and skills, including detailed project process description and documentation.