# **Nathaniel Andre Escaro**

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**SKILLS** 

Languages: Javascript (4 yrs) • Typescript (2 yrs) • C (2 yrs) • Java (2 yrs) • C++ (1 yrs) • Python (1 yr) • GDScript • Lua

**Databases:** SQLite (1 yr)

**Web Dev:** Node.js • Express • jQuery • ESBuild • Bootstrap • DataTables • HTML • CSS **Libraries:** Room • Retrofit • Puppeteer • Discord.js API • Google Sheets API • Obsidian API

DevOps Tools: Git • Github • Bash • Godot Engine • Roblox Studio • Android Studio

**EDUCATION** 

Stevens Institute of Technology | Hoboken, NJ

Bachelor of Science in Computer Science Expected May 2026

**GPA:** 3.786 out of 4.0

Relevant Coursework: Mobile Systems & Applications • Operating Systems • Principles of Programming Languages

Systems Programming • Data Structures • Algorithms • Computer Architecture & Organization

Discrete Structures • Linear Algebra • Probability & Statistics • Intermediate Statistics

**PROJECTS** 

# Full-Stack Inventory/Buy & Sell Web App

Jun 2024 - Jul 2024

Self-Developed | Typescript • ¡Query • SQLite • Express • Bootstrap • DataTables • ESBuild

- Designed and developed a web application to record and display transaction information on a stylized and customizable spreadsheet.
- Created an Express server to allow the end-user to perform CRUD operation on the SQLite database through HTTP requests.
- Used Express file middleware to accept CSV files from the user to then be parsed and inserted into the database file.
- Developed a tooling script to perform initial table initializations, execute imputed SQL, and backup the SQLite database through a CLI interface.
- Styled forms, action buttons, and other visible elements with Bootstrap and displayed queried data in a DataTables table.

Latex Viewer Plugin Jan 2024 - May 2024

Self-Developed | Typescript • HTML • Obsidian API

- Developed a plugin that renders editable LaTeX code on a separate window for the note-taking application "Obsidian".
- Created scripts to manipulate and observe the underlying HTML of the application UI to detect user edits and trigger LaTeX rendering.

Trivia Game Apr 2024

Self-Developed | C

- Created a CLI trivia game puts 3 players in a race to be the first to answer a series of questions provided by a text file.
- Wrote a server that establishes connections with multiple player clients using the C socket library.
- Used file descriptor mutexes for the server and client processes to yield until data is read through their socket(s).

Custom Minishell Mar 2024 - Apr 2024

Self-Developed | C

- Wrote a custom Bash shell that accepts custom, as well as the built-in Linux, commands and executes them.
- Designed a parser to split a source string into arguments to then be executed based on the command.

Full-Stack Chat App

Jan 2024 - Apr 2024

Contributor | Java, SQLite, Room, Retrofit, Android Studio

- Created a messaging app allowing users to send text and view incoming messages from other people.
- Utilized Room annotations to automatically setup SQLite database tables and create an interface to perform CRUD
  operations in a Java file.
- Used Retrofit exposed functions to connect the app to a provided AWS server, allowing it to send and read incoming messages from chat groups and new user registrations.

Custom CPU Language Dec 2023

Self-Developed | C

- Designed a custom scripting language to be run on a custom CPU built using Logisim.
- Developed and designed a parser in C to read the custom language file and convert each instruction into binary that can be
  executed on the custom CPU.

Godot Video Games Oct 2022 - present

Self-Developed | GDScript • Godot Engine

• Designed, developed, and published original video games made using the Godot Engine; Most were submitted to school-run Game Jam competitions.

Music Recommender Nov 2022

Contributor | Python

- Worked in a group to develop an CLI music-listing app where users can login, submit songs, and query information from the data stored between sessions.
- Designed and wrote utility functions to read and cache the "database" file, retrieve sections of data from it, and save when the program closes.
- Developed the CLI menu and features to enter and delete artists from a user's profile.
- Compiled and tested the final product for any errors by running different input scenarios (user types in nonexistent user, special characters, whitespace before/after input, etc.)

AmiAmi Web Shopper Mar 2022

 $Self\text{-}Developed \ | \ Javascript \bullet HTML \bullet Puppeteer$ 

- Developed a Web Scraper that searches the site AmiAmi and attempts to add items listed in a JSON file into the user's cart.
- Used the Puppeteer library to navigate to AmiAmi product URLs and interact with elements from the page's HTML DOM through Javascript code.

Image Fetcher Discord Bot Feb 2022

Self-Developed | Javascript • Discord API • Google Sheets API • SerpAPI

- Designed and developed a Discord Bot that sends images to members and logs all responses to the image onto a Google Spreadsheet.
- Implemented bot-specific commands to automatically perform image querying with SerpAPI and messaging to members.
- Wrote wrappers for the Google Sheets API to reduce redundancy when connecting, reading, and writing data to the spreadsheet.

Bounce! Jun 2021

Self-Developed | Java

- Designed and developed a game where you push a ball to avoid lasers spawning across the screen for as long as possible.
- Used Java Swing and AWT libraries to create the main GUI window, the Play button, and the Ball and Laser sprites.

Roblox Game Recreations Jul 2020 - Aug 2020

Self-Developed | Lua • Roblox Studio

Designed and developed recreations of Yahtzee and Minesweeper to be played on the Roblox site.

### **ACTIVITIES**

#### **Stevens Game Development Club** | Member

Sep 2022 - present

Hoboken, NJ

Participated in competitions called Game Jams where contestants make a themed game given a limited time frame.

# **Stevens Computer Science Club** | Member

Sep 2022 - Dec 2022

Hoboken, NJ

• Attended general board meetings that taught development utilities such as Git/Github and Unix environment.