## Alexander M. Harvey

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### **Qualifications Summary**

Software engineering | Web/game design | Music performance and composition | Instructing | Management | Customer serveice

#### Education

- University of North Carolina, Chapel Hill, May 2022 (graduation), GPA 3.45 (Dean's List 2 semesters)
  - o Major: B.S. Computer Science
    - Languages: under Experience
    - Relevant coursework: Intro to Security; Operating Systems; Programming Language Concepts; Bioalgorithms; Discrete Structures; Models of Languages; Algorithms and Analysis; Introduction to Mechatronics; Physical Computing; Data Structures; Computer Organization; Peer Teaching in Computer Science
  - o Minor Music
    - Instrument: classical guitar
    - Relevant coursework: Music Technology; Physics & Music; Theory; Classical Guitar Ensemble (6 semesters)
  - Minor: Neuroscience
- High School, Asheville, NC, June 2018 (graduation), GPA 4.58 (weighted)
  - o Coursework includes 28 dual-enrolment credit hours at AB-Tech Community College (GPA: 4.0 unweighted, President's List)

### **Experience**

- Coding and Computer Applications
  - o Languages (proficient): Python, JavaScript, HTML, CSS, C, Java, Typescript, C++
  - o Languages (familiar): C#, MIPS Assembly, Racket Lisp, Linux, PHP
  - o As part of a team: designed, coded, and also composed music for an online multiplayer game, Spicy 9 Adventure.
    - Runs on a custom JavaScript engine rendered using specialized HTML and CSS aided by jQuery library.
    - Used both the VS Code Live-Share plugin and a dedicated Github branch.
    - Filled many different roles when needed, from A.I. programming to map design.
  - o As part of a team: designed a single-player video game using the **GameMaker** engine in Global Game Jam.
- Music and Performance
  - o Transcribed into sheet music and performed Brian Patrick Carroll's Beyond the Knowing for UNC individual guitar lessons.
  - o Transcribed into sheet music and performed main melody of Daniel Rosenfeld's Living Mice for UNC guitar ensemble.
  - $\circ\hspace{0.2cm}$  Hired to perform solo guitar or piano at large weddings
  - o Experience with different mixing softwares, including **Cubase, Adobe Audition, Logic,** and **GarageBand.**
  - o Composed and performed closing music for UNCA podcast.
  - $\circ~$  As part of a band: electric guitar, acoustic guitar, vocals, keyboard, and bass.
- Instructing
  - o As a Learning Assistant for System Fundementals and Computer Organization: assisted students in resolving coding and submission-process issues.
  - $\circ\;$  Responsible for grading students' code style and extra-credit submissions.
- Management
  - As an assistant manager for Swim Club Management Group (SCMG): scheduled shift order, delegated and directed tasks, attended manager meetings, and reported to upper level management.
  - o Lead student cohort as a Learning Assistant for System Fundementals and Computer Organization.
- Customer Service
  - o Interfaced directly with customers as a lifeguard for SCMG, including resolving customer complaints, as well as communication and work coordination with upper-level management.
  - o Responded to all phone inquiries as an office assistant for the UNC Bands department.

## **Work History**

- Lab Intern, Oak Ridge National Laboratory, (June 2022 August 2022)
- Learning Assistant, UNC Computer Science Department, (August 2021 May 2022)
- Assistant Manager, Swim Club Management Group, (SCMG), LLC, Asheville, NC (May 2020 August 2020)
- Head Lifeguard, SCMG, (May 2019 August 2019)
- Lifeguard, SCMG, (May 2018 August 2018)
- Office Assistant, UNC Bands, Chapel Hill, NC (August 2018 May 2019)

# Other Certifications and Skills

- UNC BeAM (makerspace) certifications: Laser Cutter, 3D Printer, Machine Shop, Sewing, Embroidery Machine
- American Red-Cross Lifeguarding/First Aid/CPR/AED certification