

# Thomas Allen

Software Engineer | Python & C++ Developer

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## SKILLS

<b>Programming:</b>	Python, C++, Java (Intermediate), HTML, API Development, Algorithm Design, Pandas, Data Analysis & AI/ML
<b>Tools &amp; IDEs:</b>	Visual Studio, PyCharm, Git, Microsoft Office, Adobe Suite, Unreal Engine, Unity
<b>Hardware &amp; Tools:</b>	Test Automation, Hardware Debugging, Oscilloscopes, TCUs, RF Testing, Power Supplies, SoC Profiling
<b>Professional Skills:</b>	Communication, Adaptability, Problem Solving, Leadership, Team Collaboration

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## EXPERIENCE

**Qualcomm (San Diego)** **February 2022 - February 2023**

### Engineering Technician

- Maintained Python scripts for automation of SoC firmware regression testing, tracking results to standardize QA runs.
- Calibrated and operated oscilloscopes, TCUs, RF test gear, power supplies; supported system-level debugging of hardware.
- Ran automated performance/stability tests across 1,000+ chipsets and multiple hardware builds.
- Supported board-level rework including motherboard soldering, connector swaps.
- Partnered with 20+ Engineers (in person and remote) to validate test results, set up bench equipment, and verify/reproduce issues.

**Starbucks (San Diego)** **October 2023 - Present**

### Barista

- Served ~450+ customers/day during peak periods; collaborated with 6–8 teammates to reduce wait times and increase efficiency.

**Amazon (Phoenix)** **October 2020 - March 2021**

### Warehouse Associate

- Managed inventory and staging for large items; operated pallet jacks and coordinated inbound/outbound orders to meet shift targets.
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## CODING PROJECTS

### **NFL Data Modeling & Prediction Tool** - *Python, API Integration, Algorithms*

- Built a Pandas pipeline that collects live/API stats and computes various stats with a weighted algorithm.
- Created a Tkinter GUI for selecting opponents; integrated team logos and clean result displays.
- Modularized code for automatic weekly updates.
- Developed entirely using Python; predicts NFL games correctly at a >75% success rate (In 2024) .

### **Solo Game Dev Project** - *C++, Gameplay Logic*

- Developed a 2D Platformer using GameMaker Studio.
  - Produced 200+ custom sprites and tiles using Adobe Photoshop.
  - Scripted all aspects of the game including Enemy AI, Advanced Player movement, Level Design.
  - Implemented state machines for player/enemy behavior.
  - Wrote modular code to simplify new mechanics and weapons.
  - Designed all Levels and Puzzles.
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## EDUCATION

**Southern New Hampshire University** **Graduated August 2025**

Bachelor of Science in Computer Science | GPA: 3.36

**Relevant Coursework:** Software Engineering, Gameplay Programming, Artificial Intelligence, Data Structures & Algorithms, Computer Graphics