Allan Paiz

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SUMMARY

- Proven communicator, effective in leadership, collaborative, and supportive roles.
- Reliable and self-driven, excelling in both independent and team-based environments.
- Strong skills in problem solving, critical thinking, quick learning, attention to detail, and following directions.
- Intellectually curious, with a strong interest in computer science, mathematics, AI, algorithms, and sports.

SELECTED PROJECTS

- **Defensive Stopping Power:** 2024 NFL Big Data Bowl — Kaggle Competition   [Project Link]   [Finalists Link]
  - **Focus:** Python, machine learning, data analysis, visualizations, feature engineering, self-directed
  - **Description:** Developed a feedforward neural network in Python to detect contact between ball-carriers and defenders using NFL player tracking data. Engineered a novel metric, Yards Allowed After Contact (YAAC), to evaluate defensive performance for player scouting and game analysis.
- **TuneUp by JETA:** Software Engineering Course — Team Project   [GitHub Link]   [Demo Video]
  - **Focus:** Version control, Java, GitHub, collaboration, documentation
  - **Description:** Worked as a team to develop a music application written in Java. Following a Software Development Life Cycle process, we planned, designed, implemented, and tested our prototype over a 5-month period.

PROFESSIONAL SKILLS

- **Programming Languages**: C++, Python, Java; *working knowledge* of Bash, Haskell, Prolog
- **Tools & Libraries**: pandas, NumPy, JUnit; *working knowledge* of Plotly, Matplotlib, scikit-learn, Keras
- **Other Tools**: Microsoft Excel, Word, PowerPoint, LaTeX, git, GitHub, Adobe Photoshop and Premiere Pro

EMPLOYMENT

Data Collector - Part Time   **MAY 2024 — Present**
Pro Football Focus - PFF   Remote

- Collected and labeled NCAA football player participation data focusing on speed, precision, and consistency. Processed 9 full and 2 partial games in the 2024 season, identifying and recording **99,330+** data points.
- Achieved a **99.5%** player identification accuracy, **96.7%** player position accuracy, and a **98.9%** accuracy across all other data categories, validated through PFF's double-entry verification process.

US Marine - Combat Engineer   **MAY 2018 — OCT 2022**
United States Marine Corps   Camp Pendleton, CA

- Served as a Sapper Leaders Course Instructor, instructing Marine leaders through lecture and training in mission planning, problem solving, and small unit leadership. Operated effectively in high pressure environments, including overseas deployments and advanced technical training.

Technical Designer   **JUN 2015 — DEC 2016**
Production Resource Group   New Windsor, NY

- Collaborated with clients to engineer mechanical and structural solutions for automation and scenic systems, using AutoCAD for 2D and 3D modeling, meeting strict safety, functional, budget, and timeline constraints.

EDUCATION & AWARDS

Education:

B.S., Computer Science, University of South Carolina, 3.78 GPA   **2023 - Present**

Concentration: Artificial Intelligence	**Minor:** Mathematics
President's Honor List: Fall 2023	**Dean's Honor List:** Fall 2023, Spring 2024, Spring 2025

Relevant Course Work:

- **Data Structures & Algorithms**: Algorithm design/analysis, problem solving, C++.
- **Software Engineering**: OOP, design patterns, unit testing, Java/JavaFX, Git.
- **Advanced Programming Techniques**: C++ memory management, pointers, iterators, in Unix environments.
- **Discrete Mathematics**: Logic, proof techniques, recursion, combinatorics, probability.
- **Computer Architecture**: Instruction sets, memory addressing, MIPS assembly.

Awards:

2024	**NFL Big Data Bowl Finalist**	Selected as one of the top submissions in the NFL Big Data Bowl 2024 Kaggle competition, earning a runner-up prize of $5,000. [Kaggle Announcement] [NFL Announcement]
2021	**Marine Corps Good Conduct Medal**	Outstanding performance and conduct during three years of continuous active enlisted service in the U.S. Marine Corps.
2021	**Certificate of Commendation**	Outstanding performance of duty while serving as a seminar leader, Lance Corporal Leadership and Ethics Seminar Class 3-21.