ANTONIO A. COELHO

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EDUCATION

Loyola Marymount University, **Frank R. Seaver School of Engineering** **Los Angeles, CA**
Bachelor of Science in Computer Engineering, Minor in Computer Science July 2025
Relevant coursework: Data Structures & Algorithms, Embedded Systems, Signals & Systems, Artificial Intelligence

EXPERIENCE

Loyola Marymount University **Los Angeles, CA**
ITS Technician *August 2024 – July 2025*
- Maintained network integrity and conducted software updates, improving system reliability for over 200 users
- Supported faculty and staff with classroom technology issues, ensuring efficient, customer-oriented solutions

Andbank | Private Banking **Sao Paulo, SP**
Summer Intern *July 2024 – August 2024*
- Assisted on Wealth Management implementing risk models for HNW clients, working on team portfolio reviews
- Worked across Commercial Banking, Trading Desk, Wealth Management, and IT divisions at a top-down approach
- Attended executive-level discussions, contributing to strategic decision-making and project management decisions

ACADEMIC PROJECTS

Robotic Vision System (Capstone) August 2024 – May 2025
- Developed a robotic vision system capable of real-time object detection, 3D localization, and autonomous tasks
- Achieved 93.5% sorting accuracy using YOLOv11n; to sort batteries for quality assurance and proper recycling
- Minimized robotic control latency to 78.11ms using the OAK-D-SR's on-chip SoC for accelerated processing

AI & Algorithmic Design (Python) January 2025 - May 2025
- Applied fundamental data structures, analyzing algorithms for time/space complexity to optimize Python solutions
- Developed ML models (Bayesian Networks, NNs) for classification and reasoning using Scikit-learn & PyTorch
- Built intelligent agents for complex planning and inference tasks with probabilistic and deep learning models

Single Cycle CPU Design (VHDL) April 2024 - May 2024
- Designed a single-cycle CPU (RISC) to perform MIPS arithmetic, logic, and memory operations efficiently
- Developed project following SDLC principles and integrated instruction memory, ALU, and register file

Laboratory Projects April 2023 - May 2024
- Completed 20+ labs on hardware design, and signal processing, divided into research, review, and report stages
- Developed hands-on expertise in signal processing, hardware reliability, and applications of theoretical concepts
- Worked with LabView, Matlab, Multisim, Arduino, Raspberry Pi, and FPGA to design, test, and troubleshoot

LEADERSHIP / VOLUNTEER EXPERIENCE

- **LMU BEST Bootcamp**: Designed and prototyped an award-winning innovative AI application concept that provides recipe suggestions based on available food items and user-defined dietary goals
- **Code Next**: Volunteered for Google's free computer science education program to coach high school students to explore hardware, circuit designs, and coding, fostering innovation through hands-on projects
- **Art of Living**: Mentored in stress-reduction techniques and promoting mind-body balance for mental resilience

TECHNICAL SKILLS

Programming & Scripting Languages: Python, JAVA, R, MATLAB, C, Assembly
Data & Analytics Tools: Excel, Pandas, NumPy, SciPy, Power BI, Bloomberg Terminal, Bloomberg Market Concepts
Hardware Design & Modeling: Xilinx Vivado, VHDL, FPGA, LabView, Multisim, Arduino, Raspberry Pi
Database & Collaboration: AWS, SQL, Git/GitHub, JIRA, Confluence, Microsoft Office Suite
Languages: English (Fluent), Portuguese (Fluent), Spanish (Intermediate)