Pablo Francisco Coral – pablocoral.com

www.github.com/pablocoraldev | www.linkedin.com/in/pablo-coral/

Connect with me!

EDUCATION

Bachelor of Science in Aerospace Engineering | **Aug 2022 – May 2027**
Bachelor of Music in Piano with a performance certificate | GPA: 3.47
University of Florida, Gainesville, FL

TOP SKILLS

Core: Python, JavaScript/TypeScript, C#, Dart, C++, MATLAB || **Full-Stack:** React + Tailwind CSS, Node.js, C# .NET || **Core Database:** SQL, Firebase, AWS Cloud Pract.

NumPy, Pandas, TensorFlow, yfinance, backtrader, controls, tulipy, Matplotlib | **Supabase,** Microsoft Access | **SolidWorks**, **Siemens NX, Fusion, ABAQUS** | **Vercel**, **GitHub,** ClaudeCLI | **Google Sheets**, **Microsoft Office Suite, Excel** | Arduino, Android Studio | **Luminary CFD, XFLR-5, ANSYS STK** | **English**, **Spanish**, French

LEADERSHIP & EXPERIENCE

Co-founder and CTO | **Nov 2025 – Present**
Knead — Simplify Wealth, Gamify Investing | *Gainesville, FL*

- Lead and coordinate a 9-person team across front-end, back testing engine, and cloud infrastructure development, aligning deliverables through roadmaps, team-level reviews and weekly check-ins; implemented ClickUp for PM, and authored 10 SOPs to standardize workflows and streamline ops.
- Architected the end-to-end roadmap for a production-ready, compliant algorithmic back testing platform, applying a constrained-first iterative design approach to systematically validate assumptions and avoid over-engineering of the end-product
- Built strong technical fluency in cloud-native and quantitative infrastructure systems by completing an AWS Cloud Practitioner training, studying Python and C++ specifically for quant investing, and developing a personal back testing engine to deeply understand core libraries, APIs and user workflows
- Drove the company towards funding readiness by refining the pitch deck, and coordinating meetings with faculty advisors and practitioners to validate product direction, architecture and PMF

Founder and CEO | **May 2025 – Present**
Bike Bros Gainesville | *Gainesville, FL*

- Identified unmet demand for affordable, high-quality bicycles by surveying 150+ customers while working as a bicycle mechanic
- Built and currently manage a network of 3 mechanics to refurbish vintage quality bicycles, creating an affordable & sustainable supply chain
- Manage sourcing, quality inspection, marketing and outreach to identify and consistently reach our customer base
- Conduct semesterly upcycling pipeline reviews, incorporating customer feedback and performance data to improve product quality and profit margins

IPT Power Plant & Mech. Systems Engineering Intern | **Jan 2024 – May 2024**
Piper Aircraft Inc. | *Vero Beach, FL*

- Reverse-engineered an aftermarket oleo strut using precise metrology techniques and tools, taking over 200 measurements across 4 weeks to fully model the device in Siemens NX; Briefed a team of 5+ engineers on the mechanism of the strut to better understand how to design one of our own
- Developed a TensorFlow + Pandas Python tool to analyze more than 47,000 sensor data points and predictively model brake heat energy response for a POC aircraft; Built custom pre-processing functions for data extraction and cleaning, applying Savitsky-Golay filtering for signal smoothing and Mini-batch stochastic gradient descent for model optimization; Created dynamic visualization of output with Matplotlib (Python)
- Designed a custom parking brake valve arm, deriving allowable ROM from Beringer Aero Manuals, then implemented a fully formula-driven Siemens NX design compliant with Piper manufacturing standards for production-ready manufacturability and rapid design iteration
- Developed a Python tool to run parametric simulations of pilot field of view across varying aircraft nose lengths by deriving geometry from a CAD model, performing trigonometric analysis, and using Excel to fitz a curve to the collected data points to establish a mathematical relationship
- Engineered 2 critical parking brake valve brackets for a next-gen. M500, integrating Beringer Aero. Valves while following Piper's design standards
- Created a Python Script to automatically organize more than 2000 PDFs in Piper's Network by leveraging standardized file naming conventions

Teaching Assistant | **Aug 2024 – Present**
Design and Manufacturing Lab, UF | *Gainesville, FL*

- Direct semester-long training of 4-student groups in manual machining (mainly mills & lathes), ensuring their safety as their primary hands-on instructor
- Exercise full grading discretion, evaluating student lab performance and Design Reports against professional manufacturing industry standards
- Mentor 20+ students in the application of standard practices such as DFMA, GD&T, MIRS, ECNS and other necessary mfg. and documentation practices
- Enforce shop safety and machining process standards while supervising Student Shop manufacturing sessions in 4-hour shifts

INVOLVEMENT

Athletic Involvement | **Jan 2024 – Present**
TriGators Triathlon Club | Piper Cycling Club | *Gainesville | Vero Beach, FL*

- Achieved 11th place in the 20-24 male age category at the 2024 "Escape the Swamp" Triathlon, demonstrating strong athletic performance
- Trained with the Piper Aircraft Cycling team on 40+ mile rides twice weekly, improving performance metrics (RHR to low 50's, HRV to 75ms avg)
- Committed to 6:00am practices and team activities, while effectively navigating heavy school workloads, improving discipline and focus

Pianist and Accompanist | **Aug 2022 – Present**
Freelance Business | *Gainesville, FL*

- Lead weekly performances as the principal pianist at University Lutheran Church, learning and performing more than 9 new pieces each week
- Accompany 6 or more students regularly, including cellists, violinists and vocalists, providing support for lessons, rehearsals and performances
- Performed in critical, last-minute events ranging from senior recitals to memorial services and concerts with upwards of 3000 attendees