

Francisco Lorenzo

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EDUCATION

Villanova University

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Villanova, Pennsylvania

Bachelor of Science in Computer Engineering, Minor in Computer Science

Expected May 2026

GPA: 3.98 / 4.00 | Dean's List | Tau Beta Pi Honor Society | Institute of Electrical and Electronics Engineers | Society of Hispanic Professional Engineers | Villanova Club Tennis | Pi Kappa Phi Fraternity | Special Olympics

Universidad Complutense de Madrid and Universidad Carlos III de Madrid

Madrid, Spain

Study Abroad Program

August 2024-December 2024

ENGINEERING EXPERIENCE

Full Stack Software Engineer Intern | *Ping Identity* | Austin, TX

June 2025 – August 2025

- Contributed to PingDirectory, an enterprise directory platform serving millions of identities across large customers
- Validated rate limiting and concurrency controls that cut unnecessary calls by 60% in multi-tenant cloud deployments
- Utilized JMeter and Splunk to test and analyze performance, reducing latency and error rates during deployments
- Collaborated on code reviews, CI/CD pipelines, as well as unit and integration testing, strengthening deployment reliability and development velocity while communicating with the rest of the software development team

PolarGate & DeepGate Research Assistant | *Villanova University* | Villanova, PA

May 2025 – July 2025

- Captured and QC'd experiment data, organizing logs and comparison tables so graduate teammates could rapidly reproduce results and improve the accuracy of the PolarGate and DeepGate cutting reproduction time by 80%
- Built Python scripts using pandas and Matplotlib libraries to compute metrics and visualize error distributions across 10+ example circuits, producing side-by-side plots and summaries that surfaced over 100 deltas and outliers
- Drew data-flow diagrams mapping signal paths, functions, and ML-hardware pipelines, aiding debugging efforts

PROJECTS

Software Developer | *AtlasLog App* | Remote

January 2026 – Present

- Built a cross-platform mobile and web app with a shared serverless backend using API Gateway and AWS Lambda
- Modeled DynamoDB data schemas around defined access patterns to support scalable workout and analytics queries
- Implemented stateless JWT authentication and fine-grained authorization using Amazon Cognito.
- Integrated a contextual AI service via AWS Bedrock to generate structured insights and workouts from user metrics

Co-founder, CTO | *Peak Summit Capital LLC* | Remote

July 2025 – Present

- Built a portfolio analytics platform with React, TypeScript, Python, and yfinance modeling precise equity positions
- Developed a daily Python pipeline computing returns, volatility, Sharpe ratio, beta, and systematic vs. residual risk
- Implemented Redis caching to reduce recomputation and improve metric retrieval latency

Solution Architect | *FPGA On-Chip Data Security* | Villanova, PA

January 2025 – Present

- Built a multi-tenant secure on-chip memory architecture in Quartus with a centralized user table for DE10 board
- Prototyped bus-level isolation using an Adder and defined a drop-in Auth-Gateway IP for seamless upgrade.

System Developer | *Tennis Scorekeeping System* | Remote

January 2025 – April 2025

- Programmed an IoT-enabled scorekeeping system with a Raspberry Pi, Python, and Bluetooth for real-time scoring
- Embedded LCD system with buttons and LEDs, showcasing GPIO control and hardware–software integration.
- Built a data driven React Native and Firebase mobile companion app for wireless sync and match analytics

TECHNICAL SKILLS

Languages: C, C++, Java, Python, TypeScript, JavaScript, ARM Assembly, VHDL | **Frontend:** React, React Native, HTML/CSS | **Backend & Cloud:** Spring Boot, AWS (API Gateway, Lambda, DynamoDB, Cognito, S3), Firebase, Supabase | **DevOps & Tooling:** Docker, Git, GitHub, GitLab, Postman, JMeter, Expo Go | **Observability & Monitoring:** Splunk, New Relic | **Databases:** Oracle SQL, MongoDB, DynamoDB | **Certifications:** AWS Certified Cloud Practitioner

WORK EXPERIENCE

Academic Tutor | Weber Educational Solutions | Remote

July 2025 – Present

Sales Representative and Stringer | Tennis Junction | Bryn Mawr, Pennsylvania

April 2025 – Present

Math Peer Tutor | The Math Center | Villanova, Pennsylvania

January 2024 – May 2025