MANUEL PINEYRO

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PROFESSIONAL SUMMARY

Versatile engineer with expertise in platform and application development, specializing in scalable backend distributed systems and mobile interfaces. With experience leading a mobile team, I bring a unique blend of skills in building and optimizing infrastructure while directly contributing to application development. I excel at bridging the gap between backend and frontend, ensuring that both systems and user experiences are robust and reliable. Committed to mentoring and fostering collaboration across teams, I leverage cutting-edge technologies to drive innovative solutions in gaming, AI, and mobile UI/UX.

EDUCATION

Columbia University	Sep 2008 – June 2012
BA, Computer Science / Neuroscience	*New York, NY*
University of Buenos Aires	Sep 2024 – Aug 2026
MS, Computer Engineering, Artificial Intelligence	*Buenos Aires, Argentina*

EXPERIENCE

Fliff	April '24 – Present
Staff Engineer, Platform	*Remote*

- Led development on unified account and wallet micro-services using Go, Kafka, and GraphQL, ensuring scalability and performance to support 500k+ weekly active users.
- Built an admin tool for account balance reporting and integrated payment solutions (Nuvei, Paysafe) for streamlined user payouts and risk management.
- Optimized Kafka performance and implemented recovery mechanisms on the unified wallet, including atomically updating the database and sending messages.

Simplebet	June '18 – Nov '23
Senior Engineer / Team Lead, Games UX	*New York, NY & Remote*

- Directed architecture and development of Flutter-based applications for iOS, Android, and web, focusing on enhancing live sports betting with innovative UX and gamification. Grew the team to six engineers.
  Apps include: FanDuel PlayAction (Web), YES Pick-n-Play Live (Web), Simplebet Playbook (iOS / Android / Web), Betr Sportsbook (iOS / Android / Web)
- Led the engineering of Betr Sportsbook, a regulated US sports betting app, delivered cross-platform on iOS, Android, and a web developed with Flutter. This project covered a broad range of areas such as: authentication, KYC, payments, geofencing, and UX. Included integrating an embedded web app through a React Native shell and the development of web modules in TypeScript.
  Key accomplishments: completed and legally certified for release in 6 months, launched across 3 states, and handled $500k-900k in bets per month per state in under a year.
- Developed a "watch and bet" feature for the NY Yankees and BK Nets, integrating live betting in the YES Network App, with over 50,000 active users and 100+ bets per user during matches.
  Key accomplishments: Over 50,000 active users during live matches with an average of 100+ bets per user.
- Launched FanDuel Playaction, a real-time betting application, developing the supporting Phoenix-based API and achieving a pioneering use of Simplebet's ML-powered probability feed.
- Spearheaded development of a live interactive video app for Liv Golf, managing the evaluation of video SDKs and mastering video standards and players (Apple MSE/MMS, HLS, DASH, AVFoundation, ExoPlayer, and hls.js), focusing on betting probabilities alongside video.
- Collaborated with UX/UI designers to develop live sports match tracking mini web apps, employing the Flame game engine and Rive animations for real-time visualizations.
- Designed Elixir Phoenix-based game engine API for in-play betting markets, focusing on data ingestion, game mechanics, and user management via REST API & WebSockets.

Senior Engineer / Team Lead, Feeds Team

- Developed the core of a live sports data feed service with Elixir Phoenix, managing TCP connections, parsing incoming data, and pushing data to an in-game probabilities generation ML service.

Founding Software Engineer
- Extracted and extended essential parts of the data ingestion, question/quiz generation, and bet resolving logic into a Go-based service, rewriting admin panel and front end in React.

Sema4 Genomics
Aug '17 – June '18
Software Engineer
New York, NY
- Developed the company's first React/Rails product for genetic testing management, enhancing system performance through SQL optimizations and implementing secure payment and authentication systems.

Sqwad Sports
Nov '14 – Aug '17
Lead Engineer & Co-founder
Portland, OR
- Led creation of native iOS and Android apps for fan engagement across multiple sports teams, focusing on personalized experiences and developing an innovative time-based fantasy sports app.
- Engineered a Ruby-based API and complemented by an Elixir service for sports data ingestion, facilitating fan interaction and engagement.

Nike
Jan '15 – Oct '15
Application Engineer
Beaverton, OR
- Built and maintained services & APIs for Nike's post-purchase communication systems, including email, SMS, and globalization services.

PROJECTS

AI Video Narrator | *Computer Vision, Flask, Firebase, FFMpeg, React Native, Python*
- Narrates videos in the style and voice of the user's choosing by leveraging OpenAI's vision features and Eleven Lab's text-to-speech API.

AI Bot Challenger | *Python, FastAPI, PyTorch, TypeScript, React*
- A web-based game where users compete against a fine-tuned ResNet18 model to identify dog and cat breeds. Employed PyTorch for model training, achieving 80% breed recognition. Containerized the model using Docker behind a FastAPI server. Developed a UI using TypeScript and React, and a lambda-based API to facilitate real-time interactions with the AI.

vviggle | *Go, Python, Swift, PyTorch*
- "Band in a box" AI and iOS mobile app that takes instruments or voice as input and outputs complementary sounds while allowing the user to compose, arrange, and export to a DAW.

TECHNICAL SKILLS

Languages: Go, Elixir, Python, JavaScript & TypeScript, Dart, Kotlin, Ruby, Swift
Technologies: Android SDK, AWS, CloudFlare, Core Audio, CoreML, Docker, Figma, Firebase, Flutter, GCP, Git, Jupyter Notebooks, Phoenix, Pinecone, PostgreSQL, pgVector, PyTorch, Kafka, RabbitMQ, React & React Native, Rive, Ruby-on-Rails, SwiftUI, Three.js, UIKit, WebXR, GraphQL
Concepts: Artificial Intelligence, CI/CD, Cross-Platform Applications, Deep Learning, DevOps, Distributed Systems, ETL, Fine-Tuning, Gamification, Live Data Processing, Machine Learning, OAuth & MFA, Microservices, MLOps, Mobile Application Development, Payments, RAG, Release Management, REST APIs, SMS, Transfer Learning, UX & Design, Video Streaming, Websockets

PROFESSIONAL DEVELOPMENT

Deep Atlas: AI & ML Full Time Intensive Training | *Python, PyTorch, Deep Learning, RAG, Fine-Tuning, MLOps*
OpenCV University: Mastering Generative AI for Art | *Python, Stable Diffusion, LoRA, ControlNet, NumPy, Jupyter*
Codestars: The Complete ARKit Course | *Swift, iOS, ARKit, Augmented Reality*