Nahuel Martinez

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Software Engineer | Machine Learning Engineer

Systems Engineer with +4 years of experience, specialized in Machine Learning. I'm passionate about building AI solutions, with a focus on image classification, financial risk prediction, and data engineering. I'm currently working on multiple machine learning projects with this stack of technologies: **Python**, **SQL**, **NumPy**, **Pandas**, **Scikit-learn**, **Keras**, **TensorFlow**, along with tools like **Docker** and **AWS**. I co-founded and led a mining technology company where I spearheaded the development of advanced solutions using **Python** and **APIs**. I thrive in collaborative environments and am always eager to learn new technologies. I'm seeking opportunities to further develop my expertise and contribute to innovative machine learning and data science projects.

Work Experience

Machine Learning Engineer at Anyone AI (Part Time)   *Nov 2024 to Date*
A company specializing in building and deploying Machine Learning models, providing hands-on experience through real-world projects.

- **Image Classification for E-Commerce:** Developed an image classifier system with a pre-trained CNN in TensorFlow, achieving high accuracy across 1000+ categories. Designed a user-friendly Web UI and a Python FastAPI for efficient image processing.
- **Home Credit Risk Analysis:** Built a credit risk prediction model by analyzing a large dataset of over 350,000 transactions. Trained and evaluated multiple supervised models (Random Forest, XGBoost, LightGBM) to achieve a ROC-AUC score of over 0.75.
- **E-Commerce Data Pipeline:** Developed an ELT pipeline to collect and integrate data from multiple sources. Designed and executed complex SQL queries to extract insights and uncover patterns, such as correlations between holidays and purchase orders.
- **Led project teams and oversaw development to ensure successful delivery.**

Main Technologies: *Python, Machine Learning, SQL, Pandas, PostgreSQL, NumPy, Scikit-learn, Matplotlib, Docker, Amazon Web Services (AWS), Git, GitHub, TensorFlow, Large Language Models (LLM).*

AI Developer at Marini & Cia S.A   Oct 2024 to Date
Present A leading Argentinian pet food company specializing in the production of high-quality pet food products made with fresh meat.

- **Raw Material Process Optimization:** Optimized raw material reception and analysis using AI, streamlining procedures and significantly reducing processing times by automating data extraction and analysis from various sources.
- **Enterprise GPT Chatbot Development:** Developed an enterprise-level GPT chatbot for knowledge sharing and employee training, leveraging Atlas Search and OpenAI's API to provide instant access to information, improving efficiency and reducing training time.

- **AI-Powered API Development:** Built internal APIs incorporating AI processes, integrated with custom GPT instances using OpenAI's API to enable more sophisticated and automated solutions within various applications.

Main Technologies: *Python, MongoDB, Atlas Search, OpenAI API, GPT, RAG, API development.*

Co-Founder & Project Lead at South American Miners (SAM)   *Aug 2020 to Jun 2024*

A leading Latin American provider of autonomous Bitcoin mining solutions with immersion cooling technology.

- **Cooling Technology Implementation:** Developed and implemented advanced cooling technologies (Immersion Cooling and Water Cooling) for ASICs, increasing cooling efficiency by 40% and reducing noise by 85%.
- **Mining Farm Optimization:** Supervised the design and deployment of large-scale mining farms, optimizing efficiency and reducing energy consumption by 15%.
- **ASIC Monitoring Automation:** Created software for automatic ASIC monitoring using Python and APIs, enhancing accuracy by 35% and decreasing manual intervention by 80%.
- **Client Operations Improvement:** Improved client mining operations by 25% by automating tasks and integrating systems, resulting in a 15% cost reduction.
- **Team and Project Coordination:** Coordinated cross-functional teams, leveraging project management tools and APIs to streamline communication and improve project delivery times by 25%.

Main Technologies: *Python, APIs, Automation Scripts, Immersion Cooling Systems, Mining Farm Management Software, Scrum*

Software Developer at C&S   *Jul 2019 to Aug 2020*

An Argentinian software development company providing solutions for businesses across various industries.

- **Application Development:** Developed and maintained complex .NET enterprise applications, resulting in a 10% increase in system efficiency and user satisfaction.
- **Project Planning:** Analyzed requirements and optimized timelines, leading to on-time and within-budget project delivery.
- **Database Management:** Improved data accuracy and accessibility by creating and updating SQL schemas.
- **Development Leadership:** Led back-end development and contributed to front-end development, creating a more user-friendly interface.
- **Quality Assurance:** Ensured data reliability and reduced bugs by 90% through rigorous testing and comprehensive documentation.
- **Deployment and Support:** Managed branches in a continuous integration environment and provided effective customer support, resolving over 95% of user issues within one business day.

Main Technologies: *C#, .NET framework, React.js, JavaScript, ASP.NET MVC, Scrum*

Skills

Tech Skills: Python, SQL, NumPy, Pandas, Scikit-learn, Keras, TensorFlow, Docker, AWS, C#, .NET Framework, React.js, JavaScript, ASP.NET MVC, MongoDB, PostgreSQL, MySQL, Atlas Search, OpenAI API, Git, GitHub.
Agile Methodologies: Scrum, Kanban
Other Tools: Postman, Dbeaver, GPT Team, Visual Studio Code, PyCharm, GitHub Desktop, Jira
Languages: Spanish (Native), English (Professional working proficiency)

Education

Anyone AI *Nov 2024 to Date*

Machine Learning Engineer

Universidad Abierta Interamericana (UAI) *Apr 2016 to Dec 2021*

Systems Engineer