

# Andrés Barrera

Austin, US • Willing to Relocate Domestic or Abroad  
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Multidisciplinary Software Engineer, Product Designer, and Community Leader with 5 years of experience architecting full-stack systems, leading product development teams, and scaling impactful tech solutions across startups, mid-sized companies, and nonprofit sectors. Proven track record of delivering scalable applications in cloud-native environments using modern languages & frameworks like React, Golang, and Python, with deep fluency in containerization, AI integration, and telemetry. Fluent in both English and Spanish.

## Technical Skills

Programming Languages	TypeScript / JavaScript, Go, Python, C / C++, SQL
Frameworks & Tools	React, Express.js, Amazon Web Services (Lambda, DynamoDB, RDS, EC2, ECS, SNS, & IAM), Docker, Kubernetes, Grafana, Prometheus, Selenium, Puppeteer, Flutter
Design & Marketing	Figma, Adobe Photoshop, Adobe Illustrator, Webflow, WordPress, Semrush
Artificial Intelligence	Mistral 7B, Hugging Face Transformers, LLM APIs (OpenAI, Gemini), LangChain, Ollama, Cursor, Google ML Kit, Tesseract OCR, PyTorch

## Professional Experience

**Senior Software Engineer, Owner** January 2024 - Present  
CircleSquare Labs (Various Contracts) | Austin, US | [www.circlesquarelabs.com](http://www.circlesquarelabs.com) React, TypeScript, AWS, Docker, PostgreSQL

- Leading a full-stack technology firm with 4+ custom solutions and a community of contractors to execute client projects.
- Built a project management dashboard with Stripe payments and custom AWS SES / SNS e-mail client for system-wide notifications.
- Developed OCR and search optimization AI systems capable of effectively interpreting data on a spatial and contextual level.

**President, Software Engineer** May 2023 - Present  
Hispanic Hackers | Austin, US | [www.hispanichackers.org](http://www.hispanichackers.org) Next.js, React, TailwindCSS, Figma, Non-Profit Leadership

- Scaled a community of Latino/Hispanic technologists by 150+ new members annually, growing to 2,700+ total members.
- Established the organization's 501(c)(3) status, securing its legal and operational foundation.
- Produced & directed 45+ community events to date, resulting in increased access to resources for underrepresented technologists.

**Computer Coding Instructor (Part-Time)** September 2024 - June 2025  
Premier High School / CodeStream Studios | Austin, US Python, Leadership, Instruction

- Taught Python Programming classes at Premier High School, providing instruction & mentorship to 13 students over a school year.
- Developed curriculum, secured and implemented IEP accommodations, and prepared students for Python certification.
- Assessed the previous year's programming curriculum and identified key strengths and weaknesses from multiple user perspectives.

**Senior Software Engineer (Contract)** December 2023 - August 2024  
ChkM8 | Austin, US Angular, AWS EC2, MySQL, Java Spring, Flutter

- Conducted strategic technical audits - including a comprehensive tech stack and risk analysis for a high-stakes partnership - shaping executive decisions around scalability and resource allocation.
- Automated user registration and contest tracking with an API and dashboard application, significantly improving data reliability.
- Executed web hosting migration and SEO, improving load times and uptime while reducing infrastructure maintenance overhead.

**Software Engineer** June 2022 - July 2023  
Fathom5 | Austin, US C++, Go, RTI DDS, Docker, Kubernetes, Prometheus, Grafana

- Developed and deployed microservice-based DoD systems using Golang, C++, RTI DDS, & Docker for mission-critical applications.
- Enhanced testing coverage (including edge cases), real-world simulation environments, and integrated DevSecOps practices.
- Designed and integrated electrical systems for prototype vehicles, including CANBUS, rotary encoders, and peripheral interfacing.

**Frontend Engineer (Contract)** August 2021 - July 2022  
Alpen Aerial | Colorado Springs, US JavaScript, Python, Final Cut Pro, Photoshop

- Designed interactive media and web content using code-based tools, while supporting business planning and strategies.

**Engineering Intern** August 2020 - December 2020  
Industrial Inspection Company | San Antonio, US C++, Python, MATLAB

- Developed prototypes & firmware for high voltage systems and assessed integrity at sites like Asarco Silverbell and Exxon/Arcadis.

## Education

**Bachelor of Science in Computer Engineering** Graduated 2022  
Purdue University | Indiana, US Artificial Intelligence, Microelectronics, and Software Architecture