

Fernando Avalos

✉ fernandoadev@protonmail.com | 📄 github.com/favalosdev | 🔗 linkedin.com/in/fernando-avalos-lopez

Professional summary

Computer Science graduate with diverse experience in Machine Learning, and Software Engineering. Transitioning into AI safety roles. Seeking opportunities for continued learning and applied research.

Skills

Machine Learning	Python, Keras, TensorFlow, PyTorch, sci-kit learn
Web/Mobile Development	TypeScript, React, Tamagui, Prisma, tRPC, Zod
Miscellaneous	Git, Azure, Supabase, SQL Server, AWS.

Experience

Stealth Startup

Bogotá, Colombia

Product Engineer (aka. fancy Full-Stack Developer)

Jul. 2023 - Act.

- Accomplished cross-platform mobile app accessibility as measured by migrating 40,000 lines of code, by rewriting the entire app from React to the Tamagui framework.
- Accomplished a 20% increase in checkout conversion rates, by remaking the checkout flow with optimized API calls and a visually redesigned user experience.
- Accomplished a 30% increase in long-term user engagement as measured by successful integration of a notification system, by collaborating with growth teams to distill requirements, evaluating solutions like OneSignal, and implementing the chosen platform across the app's user authentication codebase.
- Tools:** TypeScript, React, Next.js, Expo, tRPC, Tamagui, Prisma, Zod, OneSignal, Supabase, Git.

Central Bank of Colombia

Bogotá, Colombia

Software Engineer Intern

Jul. 2022 - Dec. 2022

- Accomplished an 80% increase in incident management efficiency as measured by an automated notification system for SAP helpdesk, by leveraging Python and Azure to design and deploy the solution.
- Accomplished streamlining the sports facilities affiliation process with a 45% increase in speed, by utilizing SQL Server to design and implement optimized data loading scripts.
- Accomplished an employee upskilling solution as measured by developing an app enabling managers to identify training needs, by programming the application requirements gathered from stakeholders.
- Tools:** Python, Azure, SQL server, Microsoft Power Apps, Power Automate, Git.

Projects

Automatic Image Captioning

Independent

- Completed as part of a Coursera certification course to demonstrate competence in Deep learning techniques.
- Developed a robust image-captioning system comprising two key stages:
 - Implemented a Convolutional Neural Network (CNN) to translate images into embeddings.
 - Designed a Recurrent Neural Network (RNN) to convert these embeddings into descriptive text.
- Trained the entire network end-to-end using a publicly available dataset of image captions.
- Tools:** Python, Keras, TensorFlow, Jupyter.

Political Sentiment Analysis Platform

Observatorio de la Democracia

Jul. 2022

- Developed a website prior to the Colombian presidential elections of 2022, showcasing simulated Twitter feeds representing diverse political viewpoints on topics such as energy, defense, and gender equality. The project utilized data obtained from web-scraped tweets and applied Topic Modeling for labeling, offering a comprehensive insight into the political landscape during the election period.
- Deployed the website for public access.
- Tools:** React, Twitter API, AWS.
- URL:** bit.ly/39z6wvB
- Repository:** github.com/Obstdemocracia/wsj_clone

LISP Interpreter

Independent

- Developed a LISP interpreter in to showcase competence and for intellectual fulfillment. Implemented features include arithmetic expressions, control flow, variable declaration, and function definition.
- Tools:** Haskell, Parsec, Cabal.
- Repository:** github.com/favalosdev/f-scheme

Education

Universidad de los Andes

Bogotá, Colombia

BSc in Computer Science with concentration in Computational Mathematics and minor in German

Jan. 2019 - Dec. 2023

- GPA:** 4.42/5.0
- Extracurriculars:** EA Club organiser, IEEE Computer Society, Competitive Programming Club
- TA:** Design & Analysis of Algorithms, Language & Automata Theory, Discrete Mathematics, Web Development.
- Courses:** Abstract Algebra, Game Theory, Functional & Logic Programming