

David Horn

Experience AI products leader

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I am a hands on technology leader with 22 years of experience building, designing, and guiding products and platforms on the web, desktop, and mobile. I've worked on streaming media, esports, and fintech. Now I'm looking for a company where I can help push LLM and ML products forward.

Side projects I'm exploring

- NPC conversation engine using LLMs that isn't a gimmick
- Procedural generation of solar systems and exoplanets
- Qualitative statistics in video games

What my teams and I have used lately to solve problems

Technology

- Python
- Kotlin
- LLMs (ChatGPT, LLaMa, Anthropic)
- Typescript + React + React Native
- Postgres
- DynamoDB
- Cloud Spanner
- Redis

Frameworks & Platforms

- Django
- LangChain
- Sagemaker
- Databricks
- Donut: Document Understanding
- Transformer
- Next.js
- Electron
- Tesseract

Tools

- Hex
- Snowflake
- Retool
- Braintrust
- Figma
- OBS
- FFmpeg

Some of the projects I've worked on

Brex AI

<https://brex.ai>

AI automation for expenses

Python Kotlin Typescript + React ChatGPT LangChain Sagemaker Databricks Postgres

Brex AI is the name of the suite of AI-powered features in Brex's expense product. It includes automated receipt acquisition, budget autoselection, generative compliance documentation, and policy enforcement. There is also a search experience, which started as a chatbot.

The UI is powered by Typescript and React. LLM prompts power many of these features with data embedded from multiple sources, including L2/L3 transaction data and the user's email and calendar. Some features use ML (KNN models) for higher accuracy. The search experience is powered by LangChain with several tools for accessing expense data.

Trophy

<https://trophy.gg>

Esports social media

Python R Typescript + React Django Firebase ffmpeg Tesseract OCR Google App Engine
Google Datastore MySQL

Trophy is a social media network for sharing your gameplay achievements, including clips and stats. A desktop app records gameplay, analyzing it for clips and stats that the player can see when they've finished their gaming session and share with friends.

The web site is served on Firebase with React, which is powered by a REST API written in Django and hosted in Google App Engine. The desktop app is built with Electron and React with support from ffmpeg and tesseract. I developed the backend, website, and desktop app.

Creator Dashboard

<https://dashboard.twitch.tv>

The creator site for Twitch

Go Typescript + React AWS

The Creator Dashboard is Twitch's portal for people who stream on their platform. Before this existed, creators used mostly third party tools that used Twitch's APIs while live. It was completed in 8 months, and launched in beta during the keynote at TwitchCon.

I was DRI for the project from its inception, owning engineering, project management, and stakeholder communication. I also delivered several features when time allowed, including the Stream Manager stats bar.

DisneyLife

<https://disneyplus.com>

The Disney+ test market product

Python Objective-C Java for Android HTML5/Javascript Django MySQL Google App Engine
Google Datastore Jenkins Aptelligent

DisneyLife was the test market product released before Disney+, Disney's SVOD service. In addition to SVOD, it offered access to Disney music, books, and live streams of Disney TV channels. It supported the web, iOS, tvOS, Android, Android TV, Kindle Fire, Fire TV, and Chromecast. It was available in the UK, Ireland, and Philippines prior to the launch of Disney+ in those markets.

I was the technology leader for the product since its inception in 2013 until my departure. The team started with 8 engineers and ended at 38. I also served as the product leader for a/b testing and personalization.

Companies I've worked for

Brex

Head of AI
Jun 2022 - present

I am the engineering leader for Brex's automation efforts, touching on expense compliance, accounting, and spend. This team has worked on receipt content extraction and expense matching, expense memo autogeneration, accounting rule generation, and chat/search to name a few product experiences. In addition to product experiences and the related models, I look after the company's machine learning platform which supports Brex's risk models in addition to product models.

As the engineering leader, I have owned the team's roadmap and, with recent advancements in LLMs, have been responsible for directing product features and how they can best leverage prompt engineering. In this capacity, I grew automated receipt acquisition from 0 to 40% of expenses, memo generation rates to 30%, and improved receipt matching rates from 65% to 80%, which were the team's original OKRs.

Trophy Interactive

Cofounder and CEO
Apr 2020 - Jul 2021

During quarantine, I chose to cofound a startup focused on making it easier to become a fan of esports. I served as CEO, head of product, and full stack engineer. During this time, we built a web and desktop product that went through four major iterations, applying lean startup methodologies before arriving at its final concept.

While the project showed promise with 20 active users, it ended from lack of funds.

Amazon Twitch

Senior Manager, Engineering
Feb 2019 - Apr 2020

The Creator Business team was responsible for building and maintaining the tools and services streamers used while live on Twitch. I was responsible for engineering, technical product, and project management of this team.

During my tenure, the team was responsible for 13 services in live operations, and launched a high profile project for Twitch, the creator dashboard, on time for TwitchCon within eight months of its greenlighting.

Disney DCPI

Director, Engineering
Aug 2010 - Jan 2019

I was the technology leader for Disney Interactive Labs, reporting directly to the single thread leader of Labs. I was responsible for all engineering of new business incubation at Disney Interactive. In this position, I led the team that launched Mickey Video and DisneyLife. In early 2017, I expanded into leadership for the entire portfolio of media apps at DCPI, including Star Wars, Disney LOL, Disney GIF, and Disney Story Central.

I built this engineering organization from scratch, beginning with 3 engineers in Los Angeles. On my departure, I managed a team of 46 in four cities, participated in the patent committee, and sat on the technology steering committee at DCPI. I was also a regular invited speaker on various technology and engineering leadership topics, representing Disney at conferences.

Yahoo! Membership Platform Team

Technical Intern
Jun 2008 - Sep 2008

In the middle of my statistics degree I spent the summer of 2008 interning for Yahoo's membership team. At the time, Yahoo! was embracing open standards such as OpenID and OAuth, which I helped execute.

Websense Enterprise Applications Group

Programmer/Analyst
Jun 2002 - Jul 2005

Focusing on internal tools, I built several applications to increase efficiency throughout the company. Mainly servicing the technical services department, I conceived, designed, and implemented a replacement to their ticketing system: CWBI. This system emphasized usability and low maintenance. This solution was in place for five years until SaaS CRM offerings matured.

Patents

Content Promotion Through Automated Curation of Content Clips

US Patent [10911803](#)

Issued Apr 16, 2020

Inventors: David Horn, Michael McNabb, Jason G. Fong

Automated Conversion of Vocabulary and Narrative Tone

US Patent [10810382](#)

Issued Oct 20, 2020

Inventor: David Horn

Education

California Polytechnic University B.S. in Statistics

Class of 2010

Favorite Topics

- SAS
- Graph Theory
- Visualization

Research Project

I explored various projects and methods of applying statistical methods on social media datasets. My senior thesis described how to approximate PageRank using imperfect knowledge of the graph.