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WORK EXPERIENCE

PDFSage Inc.   **Burlington, MA, USA**
Full-Stack and Machine Learning Engineer   *12/2024 - Present*

- I registered a new C Corporation in Delaware in mid-December 2024, and the IRS received my 100% share purchase in early January 2025.
- I spent the first month working on an **AI PDF** application that also supports a jobs-controller for multi-threading jobs queued in bulk-action. The iOS and web applications are both up and live, with iOS being far superior for now. The **Firebase Auth suite of AIPoint products including PDFSage** has hundreds of users within its first week out. The PDF application is far from finished, and I intend to have it become superior compared to Adobe AcrobatPro across all platforms, after a few more months of work.
- PDFSage **Device Tools** is the most advanced **Swiss Army Knife** iOS has ever seen, and will receive continuous updates so users will always want to have the app within reach.
- In late January 2025, I started developing and designing **models**, including both **ExploitGPT** and **StupidityModel** (**both classification and generative versions**, using **mutli-layer Transformers.** StupidityModel uses base models while ExploitGPT relies on no base model and is fully proprietary from scratch.
- I also dove into game-development creating the best algorithmically possible Connect 4 AI (with several others in the pipeline), with flawless PvP support across web, iOS, and Android, and further total-integration along with Alpha Zero + premium AIPoints features coming
- Additionally I'm creating a GenAI guide powered by IVS on AWS and YouTube, for live tutorials + chat of how to best use powerful GenAI in engineering, law, and everything else. Generative AI has allowed me to project my abilities by at least 10x fold, and I'm only getting better. I expect to be able to achieve 100x+ efficiency at some point, compared to pre-GenAI work, relatively soon.
- I'd like to note that the AIPoints concept of selling premium features for revenue has y**et to be really developed**. There's very little premium AI available right now, and I'm mostly working on the plumbing that gets users to first use more basic features, and integrating all applications and web portals into the same Firebase Auth AIPoints account. This project is less than 2 months old.

Various Startups   **United States and China**
Engineer and Business Developer   *2017 - 2024*

- I worked on various startups and projects while also enrolling in a smattering of graduate school classes in computer science. The businesses I've participated in include a nutrition supplement company aiming to help prevent diabetes based in China, a startup idea for a new-generation dating platform, and several others introduced to me by potential co-founders.

ONE Consulting Inc.   **Hong Kong, SAR**
IT Consultant   *2014 - 2015*

- Helped build out the IT systems of one of Apple's major suppliers who have over $1B USD in revenue per year.

Kensho Technologies Inc.   **Cambridge, MA, USA**
Product Manager, Events Database   *2013 - 2014*

- Managed, updated, and maintained a Database of real-world events that were extracted through machine intelligence performed on unstructured real-world using the Python-based scripts
- Performed business intelligence on which types of events may have the most impact on capital markets, and use my business knowledge to write maximally-efficient and lowest-cost computational algorithms to build a Database that was used by users/investors to make capital market trading decisions
- As one of the first 10 employees, my Events Database played a pivotal role in helping Kensho successfully secure Series A and B funding; the Database was later connected to S&P Global's vast datasets, then Kensho was eventually sold to S&P Global for $550M in 2018

EDUCATION

Harvard University - HarvardX   **Cambridge, MA**
Professional Certificate in Computer Science for Artificial Intelligence   *2023-2025*
Professional Certificate for Learning Python for Data Science   *2023-2025*

Tufts University - School of Engineering   **Medford, MA**
Bachelors of Science in Engineering Science, cum laude   *September 2006 - June 2010*

GPA: 3.4/4.0 undergraduate courses; 4.0/4.0 graduate courses; 3.9/4.0 CS courses

SKILLS & ACCOMPLISHMENTS

THE ABILITY TO LEARN: Even if I have never seen your technology before, I promise I will be able to pick it up in flash time and contribute effectively to your efforts

Python, **JavaScript**, **TypeScript**, **Tensorflow**, PyTorch (no Keras == hard) , scikit-learn, **C++**, **Swift**, **Kotlin**, **MAUI .net** on Visual Studio IDE (not VSCode) with Azure backend auto-implemented; deep expertise with **Google Cloud and AWS** (I helped the NBA recommend players to draft in a 2019 Google Cloud event at MIT); front-end, servers, **APIs**, **data science, machine learning**, **AI**, **security engineering**, **XCode**, **Android Studio**, a little Go, a little Rust, etc.

Next.js full-stack routing**, enough Angular (CLI)** to make simple apps work flawlessly, **React, backend (**I have an alternatively working web portal to PDFSage running on Firebase Hosting using Angular, but the Next.js version on pdfsage.me will be used for the foreseeable future due to ease compared to Angular.)

To highlight my security credentials, I'm proud of **ExploitGPT**, a fully proprietary LLM built by PDFSage from the ground up.

Version 0.01 has 20 million parameters compared to model o1 pro by OpenAI's 10 trillion or so. The **limitation** with the **most powerful AI today** such as model o1 pro is that **they're too large**, making near-real time auto-reinforcement learning, fine tuning, and retraining **impossible**. I have **solved** this **problem** in the **most efficient way possible** for **both offensive and defensive cybersecurity capabilitie**s. Version 0.01 is an LLM that does chat completion, but is far from exploit or security analysis ready. I expect version 1.0 ExploitGPT (still far away) to be usable, by sending a pseudo-Google bot to target then returning exploits on target or directly deploying exploits generativity and incrementally, while fully-automated.

Additionally to highlight my security credentials, I'm proud of the **best-possible Stripe API** with Swift Kotlin JavaScript via Firebase Auth, Firebase AppCheck (App Attest; Device Guard currently running on AWS lambda), and Google Cloud recaptcha security checks; it has no vulnerabilities whatsoever.

Furthermore I've already created definitively the best possible solutions for working games (initially Connect 4) with adjustable A-B pruning AI difficulty (A-B pruning is just the computer counting the number of unknown nodes and attempting to reduce possibility of loss every turn), functional PvP working across web (Next.js) pdfsage.me/connect4 iOS (GameCenter integration on top; along with leaderboards) https://apps.apple.com/app/pdfsage-connect-4/id6741052119 , Android: https://play.google.com/apps/internaltest/4701251714878707689 , and Windows (+cross platform) via MAUI or Unity (link coming). **True Alpha Zero** and other **premium AIPoints-based features** are coming on top.

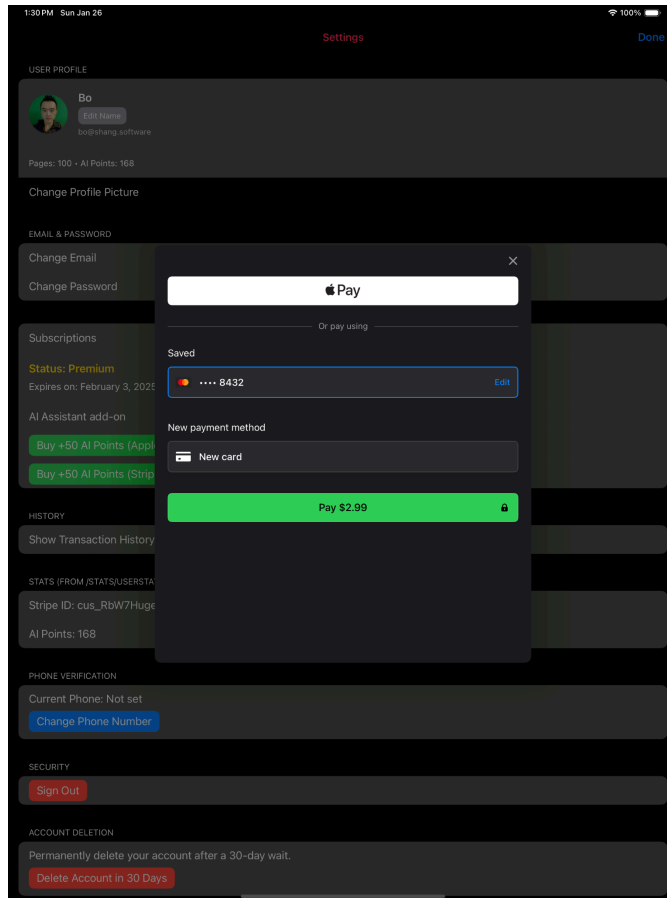**PDFSage iOS 1.12** is approved and has no bugs-ish: **https://apps.apple.com/us/app/pdfsagefid6739861453**

PDFSage Device Tools was initially based on Project Maven (in technology): **https://apps.apple.com/us/app/info-toolsfid6738795431** 1.5 pending review will have much more Kali Linux features and an integrated multi-media player for iCloud mp3 and video. 1.6 will likely include yt-dlp, ffmpeg, IVS via AWS, and full battlefield awareness with hardware controller via mapping LiDAR (full maps) with machine vision and other sensors included in iOS.

One **AIPoints** idea is starter code for **InfinityX**, a next-generation photos library that enforces strict GPS (editable) metadata for beautiful maps-based UI, that supports best-in-class traditional editing, scikit-learn editing better than any available (merge.py), TFLite editing, and Tensorflow full editing. https://github.com/GhidraDragon/InfinityX

I'm creating a **No-Limit Hold'em app that wager collectables** based on collectable market value (such as Steam API), but I haven't secured a license for this non-profit pseudo-gambling app. **Users could wager AIPoints too.**

STANDARDIZED TEST SCORES

ASVAB - US Department of Defense: 141 US Army General Technical - ASVAB 2023 - 4.1 STDEV above median

SCREENSHOTS

ExploitGPT 001 with 20 million parameters

Stripe on iOS and PDFSage GenAI Guide starter code

HYPERLINKS

https://www.pdfsage.me
https://www.pdfsage.io

Device Tools:
https://itunes.apple.com/WebObjects/MZStore.woa/wa/viewSoftware?id=6738795431
PDFSage:
https://itunes.apple.com/WebObjects/MZStore.woa/wa/viewSoftware?id=6739861453
Connect 4:
https://itunes.apple.com/WebObjects/MZStore.woa/wa/viewSoftware?id=6741052119
Connect 4: **https://play.google.com/apps/internaltest/470125171487870689**

Resume:
https://docs.google.com/document/d/1BGPVo0CA-fYbKpizAVYC0jJdaZEDbBuQ3bM68AmcdaU/edit?usp=sharing