Scott Howard Swain scott@oceanmedia.net Austin, Texas

SUMMARY

29 years full stack dev and lead experience, 6 years ML/AI dev and integration. Tech and people lover. Adapts and thrives independently and collaboratively. https://linkedin.com/in/scottermonkey. Motivated, dependable, well-rounded, innovator.

People skills relevant to communication, writing, and working with others: Author of A Practical EmPath: Rewire Your Mind. 19 years' study, practice, and teaching of interpersonal skills, including leadership, group dynamics, mediation, and conflict resolution; improves interfacing with clients, team members, and management. 29 years' leadership experience related to software creation, training, mentoring, leadership, communication, media, and community health. 35+ years of technical writing. A couple hundred examples.

- 2018-2024 designed, coded, trained EmpathyBot ai.
- Machine learning LLMs since 2018: Claude 3/3.5, GPT-3.5, GPT-4 (turbo, o), Perplexity prompt engineering; extensive API use; creating experts, chatbots; VAs; Agent & • prompt chain creation.
- Python since 2015: web dev; automated testing; Flask; concurrency/multi-threading; RESTful API; OCR; NLTK; PyTorch; Scikit-Learn; Pandas.
- Full stack development since 1995: Planning, designing, budgeting, building web/db & SaaS apps; built full-featured WYSIWYG CMS in 1996.
- Front-end since 1995: JavaScript, HTML, CSS; UI/UX Design & build; Adobe Animate; AEM; Photoshop; usability; SEO; 2D/3D animation.
- Database design/use/ETL since 1994:
 PostgreSQL, SQL Server, MySQL, MS Access.

TECHNICAL HIGHLIGHTS

Created/trained the full stack of multi-agent NLP ML/AI "Conversational therapist/personal coach/VA". 2018-current: Designed, coded, trained https://EmpathyBot.net, a natural language processing model initially using a home-brewed pattern-recognition system. Built interface for users to easily assist in training the model by critiquing its responses via multi-choice dropdowns for each part of the ML's response. Next, created an API in Python/Flask to integrate NLTK to increase sentiment accuracy. Added Telegram bot. Added multi-model auto-switching between Claude 3 Opus, 3.5 Sonnet, and GPT-40 APIs, as needed. Four-agent prompt-chain functionality: (a) "Compressor" reduces size of longer user queries to decrease cost; (b) "Abuse Detector" determines how far user query is from bot's intended knowledge domain and acts accordingly, which can include banning a user's IP address, (c) "Coach" processes user input, and (d) "Editor" analyzes potential output for accuracy and kicks it back to "Coach" if needed. - Currently: (a) Replacing last ASP code with Flask to reduce dependence on MS IIS; (b) Incorporating Retrieval-Augmented Generation (RAG).

Automated CRM validation and integration (@ Critical Update) as freelancer using make.com, Google Sheets, OpenAI's GPT-4o, Anthropic's Claude 3.5-sonnet, Perplexity, etc. to automate (a) CRM data gathering, validation, targeting, and outreach. (b) LLM-driven article research, writing, image generation, and auto-posting to social media.

Senior Remote Python Developer (@ AdhereHealth) - Part of multiple Jira Agile Scrum teams. Sometimes led, sometimes followed. Strategy, collaboration, coding to automate complex processes. Browser automation, automated testing, web scraping, file handling, PDF analysis, pattern recognition. Trained offshore team. Architecture. Used GPT-4 prompting to assist planning and code/data analysis. AWS Services to interpret and automate. Pair programming. See "Technical Highlights" for primary solutions built.

Automated invoice processing (@ AdhereHealth): Challenge: hundreds-per-day PDF prescription invoices with inconsistent structure, previously processed manually by Finance Department. Solution 2023: Built a Python app to fully automate image pre-processing, text detection (regions), text recognition (OCR), restructuring (assign coordinates to the recognized text regions), post-processing, and finally, SQL to write to database.

Created AWS patient records processing pipeline (@ AdhereHealth): Challenge: batches of patient records submitted with varied structures previously requiring hours of expensive manual processing. Solution: automated cloud pipeline (using AWS Lambda, Glue, Boto3, Athena, Textract, S3) to get CSV files, recognize fields present/missing, validate, fix data formatting & order, restructure, create logs, feedback, results to S3 bucket.

Automated POS data processing (@ State Park Grocery, TX): Challenge: Process batches of XML and PDF files (adapting to unpredictable structure) from POS system. 2023: Built a Python app to fully automate reading the files, copying data into a database, data analysis, move completed files, saving the store hours a week of data entry.

Full Stack Developer/Lead/Architect (@ Baystar Printing): Completed many projects for them and their clients, including: Managed Russian and Indian teams to build a Craigslist-like site. Various other web/database projects for Baystar's clients during this period. Built a mobile app to display listings from the Nutshell site database. Much managing/planning/creation of architecture, road maps, timelines, and budgeting.

TIMELINE of HIGHLIGHTS: FREELANCE, CONTRACT (more jobs & details provided upon request)

- 2018-2024: **AI Integrator/ML Dev** as freelancer dba OceanMedia. Creation of ML-based apps, including chatbot & custom GPTs. Includes building various automation pipelines using make.com's tools.
- 2022-2023: **Senior Python Dev** for AdhereHealth. Details above.
- 2022: **Python Dev** for Rapid7. Rewrote DevSecOps/Cybersecurity app (multi-system vulnerability, fault-analysis of API data, reporting) to increase performance, modularity, usability. Added multi-threading (Concurrency Futures).
- 2021: **Web3/Blockchain API Dev** for Paluritano. Created Python application to mine data from the Hive blockchain, automate API querying to analyze, tally rewards, and create reports for user accounts.
- 2019-2020: **Architect/Full Stack Dev** for Road & Yard Masters freelance client. Planned, designed, and coded a web-based and responsive inventory management system using Python, Flask, JS/HTML/CSS, and Postgres. Extensive API creation/use. Full stack. Used Photoshop to design their logo and web site. Automated many processes, saving money and manpower.
- 2015-2016: **Full Stack Dev** for Roo Delivery. Designed/built web/db Delivery Logistics app to automate client & delivery requests, driver assigns, routes, loads, tracking. Python, Classic ASP, JS, Excel, MS Access, SQL Server.
- 2013: **Contract Dev** for Schlumberger: Created and modified applications to automate and analyze tens-of-thousands of MS Excel workbooks of oil and gas industry data (petroleum engineering), run calculations, validate data accuracy, copy modified data into SQL Server. Used ASP.Net and VB.Net.
- 2007-2014: Technical Consultant & Webmaster for Texas Gulf Bank: Rebuilt site into my CMS.
- 2000-2011: **Tech Consultant/Dev/Team Lead** for Independent Bankers Association of Texas (IBAT).
- 1999-2000: **Lead/Webmaster** for Trilogy. UI/UX, usability, accessibility, SEO, team building, and team leadership.
- 1998-1999: **Co-founder/Architect/Lead** for Wired Banks: Led team to create web/database application for matching buyers and lenders, facilitating immediate pre-approval for purchasing of cars online.
- 1995-1998: **Database Trainer** for Database Marketing Group. **Software Dev** for Smith Seguin, San Marcos. **Software Dev** for Cinqular Wireless.
- 1996: Full Stack Dev for OceanMedia. Created full-featured WYSIWYG CMS (still operational).

LEADERSHIP HIGHLIGHTS

Operations Director for LightFaktor - Increased overall company morale, health, and profits. Created processes for streamlined client/vendor communication, led team-building exercises, mediation, increased productivity. Built Project Management app to increase order and efficiency.

Co-founder/Architect/Lead for Wired Banks – Led team to create web/database application for matching buyers and lenders, facilitating immediate pre-approval for purchasing of cars online.

Currently leading "Practical Empathy Practice Group" (based on my book) (Founded May 2015) - Free meetup group as facilitator/trainer/leader; 2100+ members. Created sister group in Acapulco, Mexico in 2017.

Currently leading "Voluntaryists of Austin" (Founded Dec 2014) - Free meetup group; 1100+ members.

OTHER ACCOMPLISHMENTS

- Author of the "A Practical EmPath: Rewire Your Mind" book: https://clearsay.net/get-the-book-practical-empathy
- Trained teachers at Children's Discovery Center to use my "Practical Empathy" system.
- Created Play to Evolve physical card game, Android version, and free web-app version. Incorporated my EmpathyBot.net a.i. into the game.
- Self-discipline, flexibility, patience, and dedication: Black Belt Shaolin Kung Fu. Currently providing free classes.
- Technical Writing: ML prompting and system messages, 100's of Tech tutorials & docs, educational, and more.

EDUCATION

- 2008-2009: Adult Continued Education Program: VB.Net Development Austin Community College 4.0 GPA
- 29 years of planning, budgeting, design, dev, serving clients, building/leading teams, short/long-term contracts.