David Silveira

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Accomplished software engineer with a proven ability to quickly learn new concepts and deliver innovative, high-impact solutions throughout the entire development lifecycle. Seeking a full-time software engineering role at a forward-thinking company tackling complex problems where I can contribute meaningfully and make a lasting impact.

Technical Skills

Python, Shell Scripting, C, Systems design, API development, Linux Operating Systems, Reverse Engineering, Qemu, Virtual Machines, Web Development, Javascript, ReactJS, Django, Flask, Docker, Large language models, Network Scanning/Penetration Testing, Kali Linux, APFS, UX/UI design, Figma, AWS

Experience

Skaion Corporation, North Chelmsford - *Software Engineer*

February 2024 - January 2025
Contract

- Key contributor in the initial year of a government R&D project, actively involved in reviewing contract proposals and collaborating with upper management to shape and refine the implementation plan, ensuring alignment and incorporating feedback throughout development
- Engineered the Python backend framework from the ground up, initially leveraging Django to design data models and develop REST APIs. Later re-implemented all functionality into a collection of Python scripts to meet evolving project requirements.
- Designed and developed a React.js frontend framework to guide users intuitively through backend-driven processes, utilizing npm packages such as react-force-graph-3d (and 2d), Material UI, and x-charts for dynamic data visualization and table displays.
- Containerizing each application component creating Bash scripts and Dockerfiles to manage DevOps, for seamless packaging and deployment.
- Developed an AI microservice using GPT4All, integrating Celery and Redis to manage asynchronous requests and enforce memory usage limits.
- Conducted bimonthly meetings with shareholders to present technical progress and gather feedback, ultimately securing the next round of funding.

Forum Systems, Needham - *Software Engineer*
February 2022 - May 2023
Full Time

- Collaborated with top executives to design and execute a cutting-edge machine learning-driven risk analysis feature for PDF contracts
- Worked with a team of three developers, focusing on innovative features such as NLP-based healthcare benefit encoding and machine learning-powered product analysis
- Skillfully developed Python code for a robust Django backend and efficient training/inference engines
- Effectively utilized Word2Vec, Transformer and GPT models for sophisticated text analysis and precise risk score computation
- Crafted engaging and responsive user interfaces using JavaScript, React.js, Material-UI, and a range of visualization npm packages
- Facilitated seamless onboarding for new developers by establishing a 'dev-shortcuts' repository, featuring over 25 productivity-enhancing shell script shortcuts

Kwak Laboratory, Amherst - *Research Assistant*
January 2020 - June 2021

- Developed a custom R program to process and analyze text data from Excel sheets, streamlining data handling workflows.
- Conducted text analysis on respondents' reactions to different framing words related to the 2018 midterm elections, uncovering key sentiment patterns.
- Utilized advanced data processing techniques to extract actionable insights from text data, enhancing interpretative depth and reporting quality.

Independent Ventures

Easy Covers Software - *Founder, Lead Engineer*
May 2023 - February 2024

- Launched an advanced ATS software project utilizing generative AI and machine learning to revolutionize recruitment processes. Engaged extensively with recruiters to understand their key challenges, designing targeted features to

address their needs effectively.

- Engineered a robust software platform with Django powering the backend and Next.js driving a dynamic frontend, reinforced by a secure Nginx reverse proxy to optimize performance and scalability.
- Developed an advanced ASR pipeline using open-source Kaldi and Hugging Face models for cutting-edge speech recognition and speaker diarization, setting new standards in recruitment technology.
- Built a scalable microservices architecture with dedicated transcription and Flask services, integrating a Redis messaging queue to maintain responsiveness and reliability.
- Crafted engaging and responsive user interfaces using JavaScript, React.js, Material-UI, and a range of visualization npm packages.
- Created impactful pitch decks and a comprehensive business plan, building strategic partnerships and showcasing the software's value in high-stakes presentations to investors and potential clients.

Education

University of Massachusetts, Amherst

Bachelor of Science
September 2017 - May 2021

- Degree in Psychology with a concentration in Neuroscience and a minor in Computer Science.

Columbia University, New York

Software Engineering Boot Camp
September 2021 - January 2022

- Completed an intensive program focused on full-stack development, modern technologies, and real-world projects.