

# Jake Mofa

## Software Engineer

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Innovative and solutions-driven Data, ML & Full stack Software Engineer with deep expertise in designing scalable data systems in distributed, front-end, and back-end architectures. Skilled in developing scalable and maintainable applications using modern web technologies (Kubernetes, Docker) and cloud systems (AWS). Deep-depth level of Database Management and implementation

### WORK EXPERIENCE

<b>Software Engineer II</b>	<b>Vendo</b>	Los Angeles CA	11/2022 - Present
<ul style="list-style-type: none"><li>Led the design of a B2B dashboard application and developed this application using a microservice architecture on <b>AWS</b>, with <b>Javascript, Express.js, MYSQL, Aws Functions</b>, and <b>AWS secret manager</b>, driving \$35.3 million of revenue annually.</li><li>Guided the migration of a real-time data analytics dashboard application, Transitioned from <b>PHP</b> to <b>React</b> for the <b>front-end</b> and to <b>Node.js</b> for the backend, improving page load times by <b>20%</b>.</li><li>Added <b>Redis</b> cache layer between the <b>microservices</b> and <b>database</b>, reducing database traffic by <b>40%</b> and saving over <b>\$20000</b> in RDS operation cost.</li><li>Migrated the application from a serverless deployment to a <b>microservice architecture</b>. Deployed and managed on <b>Kubernetes</b> with a local development version on <b>Docker</b>.</li><li>Developed a <b>PHP REST API</b> that handles serverless communication between <b>frontend-backend</b>, reducing data transfer time by <b>30%</b> and implementing <b>Amazon Ads</b> and <b>Sponsored Product API</b> integration for dashboard advertising metrics (CPC, SP, SB).</li><li>Automated data reporting pipeline using <b>Python</b> to generate daily reports and detect data anomalies using <b>AWS Lambda</b>.</li><li>Built responsive data charting and visualization reports dashboards with <b>React</b> and <b>Redux</b> from <b>SQL</b> DB and Amazon Marketing Cloud.</li><li>Used Amazon CloudWatch Logs for logging database queries, data metrics, and API requests, setting alarms to detect API downtime and ensure system reliability.</li><li>Enhanced enterprise data analytics by deploying scalable <b>Kubernetes clusters</b>, ensuring system uptime and performance.</li><li>Built and optimized APIs and containerized applications using <b>Docker, Kubernetes</b>, and integrated with CI/CD pipelines through <b>Jenkins</b> to improve deployment speed by 25%</li></ul>			
<b>Software Engineer (contract)</b>	<b>Phenotype</b>	New York, NY	01/2023 - 03/2023
<ul style="list-style-type: none"><li>Engineered an <b>Operator Controller (GUI)</b> using <b>JavaScript</b> and <b>React</b> for <b>Electroencephalography (EEG)</b> data collection and processing, integrating <b>Petal Metrics API</b> through <b>Python</b> for real-time data transmission to <b>Blender</b>.</li><li>Developed a dynamic data visualization platform using <b>Python</b> with <b>AWS SDK (boto3)</b>, to automate the export of 3D models from <b>Blender</b> to <b>AWS S3</b>, integrating with <b>Shopify webhooks</b> to handle account-based events using the Shopify API.</li><li>Designed a comprehensive VR animation automation pipeline using <b>React.js, Blender</b>, and <b>AWS Lambda</b>, ensuring seamless data transfer and animation triggering</li><li>Developed JavaScript scripts using <b>AWS SDK</b> to securely display 3D files from the <b>AWS S3</b>, on custom Shopify pages, allowing client's to purchase on their accounts.</li><li>Developed backend services with <b>Python Flask</b> and implemented real-time data processing pipelines, leveraging <b>Postman</b> for API testing</li></ul>			
<b>Backend Developer</b>	<b>Fashionista Africa</b>	Douala, Cameroon	02/2020 - 03/2021
<ul style="list-style-type: none"><li>Developed a cloud-based e-commerce platform to showcase and sell African designs and fashion products online using <b>AWS (Elastic Beanstalk, S3, and RDS), JavaScript, React</b>, and <b>Node.js</b>.</li><li>Created a recommendation engine using machine learning, <b>Python, Django PostgreSQL</b>, and <b>SQL</b> to suggest African fashion products to customers based on their preferences and purchasing history.</li><li>Collaborated and worked on the inventory management system deploying docker containers, then using <b>Python, Django</b>, and <b>MySQL</b>, to manage and track African fashion products, reducing stockouts by 25% and overstocking by 30%</li><li>Created a <b>machine learning recommendation engine</b>, providing customers with personalized product suggestions, leveraging data analytics to improve customer retention.</li></ul>			

### EDUCATION

Bachelor of Computer Science A.S of Computer Science	<u>San Jose State University</u> <u>San Joaquin Delta College</u>	San Jose, Ca, Stockton, CA	01/2022 - 01/2023 01/2020 - 01/2022
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### Certification

- Google IT Automation with Python Professional Certificate.
- Meta Back-end Developer: Professional Certificate
- Javascript Deeper Dive: Certification issued by Scrimba.
- Amazon Marketing Cloud Certification issued by AWS
- Front End Developer Career Path: Certificate
- AWS Certified Cloud Practitioner issued by AWS

### PROJECTS

<b>Founding Software Engineer</b>	<b>Envixus</b>	LA, CA	07/2024 - Present
<ul style="list-style-type: none"><li><b>Designed</b> and implemented a comprehensive <b>system Design</b> of a scalable B2B automotive analytics platform with <b>React</b> for frontend, Node.js as an API gateway, and Django <b>backend</b>, enabling a secure and scalable platform for real-time data analytics.</li><li>Built an <b>ETL</b> pipeline using <b>Python</b> to extract, validate, and transform raw CSV or JSON data from APIs and web scraping, ensuring seamless ingestion into PostgreSQL for accurate and reliable data storage.</li><li>Engineered a Data Collection Service using <b>Python</b> and <b>Django</b>, integrating web scraping and API connections (Marketcheck, VinAudit) with <b>Redis</b> caching for immediate access capturing real-time vehicle data that reduced latency.</li><li>Integrated <b>machine learning models</b> within the Analytics Service for predictive insights (demand, depreciation), leveraging <b>Django</b> and <b>PostgreSQL</b> for model training and storage, which improved the platform's predictive accuracy.</li><li>3201</li></ul>			

- **Mapped out and built the database architecture and schema**, using **SQL** for **PostgreSQL** and **MongoDB** to create tables and structures for storing historical car data and live scraped data as defined in the schema.
- **Automated data** ingestion processes to support internal systems, ensuring error-free data validation and transformation for PostgreSQL databases.
- **Developed a Generative AI Reporting module powered by GPT-4 and custom NLP algorithms**, generating user-specific reports and insights that enabled personalized customer interactions
- **Implemented a scalable backend with Docker and Kubernetes to support horizontal scaling of high-traffic services**, ensuring the platform can handle peak loads with minimal downtime
- **Built an API gateway with Node.js to centralize routing, authentication (JWT-based), and rate-limiting**, ensuring secure user access and reducing server response time

#### [DBML Extension Previewer](#)

- Created and **Designed** live rendering for DBML files as SVG graphs within VSCode, improving visualization workflows for database schema design.
- Built a custom parser in **TypeScript** to analyze DBML files, handling tables, relationships, and enums with robust error-checking mechanisms.
- Utilized Webpack for efficient bundling of **TypeScript** files and implemented file watching capabilities using Node.js APIs to enable real-time updates for DBML files.
- Added and optimized commands like *Generate DBML Graph* and *Save DBML as SVG* using **TypeScript** and the **VSCode API**.

#### Lead Developer | [AccountManager.ai](#)

06/2024

- Orchestrated the end-end design and implementation of a high-level architecture for managing Amazon and TikTok marketplace account
- Integrated Amazon Seller Central and TikTok Ads APIs using TypeScript, **Python**, and **Node.js**, automating data flows and improving marketing insights for platform visualization.
- Utilized **MongoDB** and SQL databases for efficient data management, Metrics insight and cloud-enabling advanced user targeting and ROI analysis.

#### [NFT Network Analysis](#)

Executed in-depth NFT data analysis using Machine Learning, SQLite and pandas, pinpointing the top 5 projects by volume.

#### Founder & Lead Developer | [Envision Dreams Technology](#)

- Founded and directed a technology company focused on developing secure, scalable web and app solutions, utilizing advanced cloud computing and cybersecurity techniques to enhance digital transformation across various sectors.

#### **SKILLS**

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Python | PHP | C# | Node.JS | JavaScript | TypeScript | HTML5 | CSS3 | Java | MySQL | SQL | NoSQL | PostgreSQL | REST API | Azure DevOps | Troubleshooting | ticket resolution | documentation.

Express | Flask | Django | React | jQuery | Bootstrap | Redux | Vue | Cloud Computing | OOP | SDLC | Kafka | angular | terraform | sonarqube | Git | Docker | Kubernetes | CI/CD | AWS | CloudTrail | GCP | Azure | Jira | Jenkins | System Architecture | Redshift | Redis | DataDog | Microservices | Distributed Systems | Frontend | Backend | Full-Stack | Cloud Computing | Scrum | DevOps | SDK | oracle | sqlserver |  
 Soft skills: Communication (French, English), Problem-Solving, Critical thinking, Leadership, Adaptability, Time-Management,