**Professional Summary**

* **Fueled by my passion for Web3 and crypto,** I translated insights from decentralized architectures into building responsive SPAs with React and Hooks—leveraging Redux and Context for robust state management and dynamic code-splitting to optimize performance.
* **Driven by my passion for Solana**, I engineered on-chain programs in Rust using the Anchor framework, deployed them via Solana CLI on devnet/testnet, and integrated front-end wallets with @solana/web3.js and Phantom for seamless, performant dApp interactions.
* **Developed Web3 dApps** with **Solidity** smart contracts on **Ethereum**, using **Hardhat**, **Truffle**, and integrating via **Ethers.js**/**Web3.js**.
* **Architected component-based UIs** in **React**, achieving 90%+ test coverage with **Jest** and **React Testing Library**.
* **Designed and executed growth experiments** (A/B tests, referral loops, incentive programs) with **Optimizely** and custom analytics, driving double-digit lift in sign-ups.
* **Optimized logged-out web journeys** and **onboarding flows** through heat-map analysis (**Hotjar**) and user feedback loops, cutting drop-off by 20%.
* **Integrated on-chain wallet interactions** for **Ethereum** and **Solana** via **MetaMask**, **Phantom**, and **WalletConnect**.
* **Managed public/private key encryption** workflows with **Web Crypto API** and **PyNaCl**, ensuring E2E security and compliance.
* **Deep expertise in Bitcoin** protocols, deterministic key derivation (BIP32/BIP44), entropy sources, and transaction integrity checks.
* **Built real-time P2P chat** platforms using **WebSockets**, **aiortc (WebRTC)**, and **Socket.IO**, architecting signaling servers for sub-100 ms audio latency.
* **Developed audio-processing & visualization** apps in **Flask**, **aubio**, and **WebSockets**, streaming live waveform data to React dashboards.
* **Automated UI testing** with **Selenium**, **Cypress**, and **pytest**, integrated into **GitHub Actions** and **Jenkins** pipelines.
* **Designed RESTful APIs** with **Flask**, **FastAPI**, and **Spring Boot**, implementing JWT auth, OpenAPI specs, and rate-limiting via **NGINX**.
* **Implemented GraphQL** services backed by **Bitquery**, **Apollo Server**, and **Prisma**, enabling flexible on-chain data queries.
* **Containerized microservices** using **Docker**, orchestrated with **Docker Compose**, **Kubernetes**, and **Helm** charts.
* **Defined infrastructure as code** with **Terraform** and **Ansible**, provisioning AWS (EC2, ECS, RDS, S3), GCP (GKE, Cloud SQL), and Azure resources.
* **Tuned API rate-limiting & caching** strategies with **Redis**, **Memcached**, and **CloudFront**, ensuring low-latency under load.
* **Developed custom CAPTCHA generators** using **Canvas API** and **TensorFlow.js**, and anti-bot defenses with **Cloudflare Bot Management**.
* **Configured Cloudflare** for **DDoS mitigation**, **WAF rules**, and global CDN caching.
* **Integrated SOAP** and **REST** services via **Apache CXF**, **Retrofit**, and **Spring Web Services**.
* **Built React Native** mobile apps using **Expo**, **TypeScript**, and native module bridging; migrated legacy iOS/Android modules.
* **Launched 0→1 products**, defining MVP requirements, rapid prototyping in **Figma**, and iterative scaling driven by metrics.
* **Expertly debugged production incidents** using **Sentry**, **ELK Stack** (Elasticsearch, Logstash, Kibana), and **Prometheus** + **Grafana** monitoring.
* **Drove Agile/Scrum** ceremonies (sprint planning, stand-ups, retrospectives) with **Jira** and **Confluence**, boosting team velocity by 25%.
* **Collaborated cross-functionally** with UX designers, product managers, and execs to translate roadmaps into deliverables.
* **Championed clean code** with **ESLint**, **Prettier**, and Git hooks, and maintained 95%+ code coverage.
* **Advocated accessibility (WCAG AA)** and **Core Web Vitals** performance best practices.
* **Mastered network protocols** (SSH, TCP/IP) and low-level socket programming for custom tunnels and diagnostics.
* **Packaged cross-platform builds** (APK, EXE, MSI, Chrome/Firefox extensions) with **Electron**, **Cordova**, and **Webpack**.
* **Deployed & managed cloud apps** on **AWS Lambda**, **ECS**, **Fargate**, and **Heroku**, optimizing cost with **Spot Instances** and auto-scaling.
* **Designed microservices** with resilience patterns (circuit breakers, retries) using **Istio** and **Envoy** sidecars.
* **Implemented event-driven architectures** with **Kafka**, **RabbitMQ**, and **AWS SNS/SQS** for decoupled workflows.
* **Leveraged advanced CI/CD** with **CircleCI**, **GitLab CI**, and **Spinnaker** for multi-region deployments.
* **Integrated observability** using **OpenTelemetry**, **Zipkin**, and **Jaeger** for distributed tracing.
* **Passionate about Web3 & blockchain**, contributing to open-source protocols, authoring developer guides, and speaking at conferences.
* **Thrive in high-pressure, feedback-driven teams**, continuously leveling up through code reviews, brown-bag sessions, and pair programming.

**Skillset**

* **Languages & Frameworks:** C · Python · Java (Spring Boot) · JavaScript (ES6+) · TypeScript · Solidity · Rust · SQL/NoSQL (PostgreSQL, MongoDB) · React · React Native · MERN (MongoDB, Express, React, Node) · Flask · FastAPI · Express.js · OpenCV · Selenium · Streamlit · GraphQL
* **Tools & Platforms:** Docker · Docker Compose · Kubernetes · Helm · Git & GitHub (Actions) · GitLab CI · Jenkins · CircleCI · Terraform · Ansible · AWS (Lambda, ECS, RDS, S3) · GCP (GKE, Cloud SQL) · Azure · Heroku · Cloudflare · Redis · Memcached · Kafka · RabbitMQ · Prometheus · Grafana · Sentry · ELK Stack · Postman · Bitquery
* **Specialties:** Web3 & Blockchain Development · Smart Contracts & Anchor (Solidity & Rust) · Solana & Ethereum Integration · Crypto Encryption & Randomness Analysis · Public/Private Key Management · DDoS Mitigation & Security (Cloudflare, WAF) · P2P Chat Systems & WebSockets · Audio Processing & Visualization (Flask, aubio) · Machine Learning Integration · UI-rich Experiences & Accessibility · CAPTCHA & Anti-Bot Strategies · REST & SOAP API Design · API Rate-Limiting & Performance Tuning · Event-Driven & Microservices Architectures · Agile / Scrum Methodologies & Sprint Planning · Automated Testing & Debugging · SWOT & Business Analysis · Network Protocols (SSH, TCP/IP, LAN) · Packaging & Distribution (APK, EXE, MSI, Browser Extensions)

**Professional Experience**

Graduate Student **University of Central Missouri** Aug,2023 – May,2025

CGPA: 3.4

* **Specialized in advanced software development:** mastered system architecture and cloud-native application patterns
* **Applied Agile methodologies:** led iterative, team-based projects with sprint planning and retrospectives
* **Built AI-powered solutions:** developed custom compilers, classification models, and cloud-based data pipelines
* **Led Healthcare Workflow capstone project:** designed and deployed end-to-end UI/UX, automation, and backend integration
* **Developed MERN stack expertise:** MongoDB, Express, React, and Node.js for full-stack web application development
* **Integrated AI/ML pipelines:** incorporated TensorFlow models into production workflows using Python
* **Designed RESTful & GraphQL APIs:** implemented with Flask, FastAPI, and GraphQL resolvers for flexible data access
* **Implemented real-time communications:** leveraged WebSockets in Flask and Node.js for live data streaming
* **Leveraged AWS services:** used Lambda, S3, RDS, and CloudWatch for scalable serverless architectures and monitoring
* **Containerized applications:** orchestrated multi-container deployments with Docker and Docker Compose
* **Automated CI/CD workflows:** built pipelines in GitHub Actions, Jenkins, and CircleCI for reliable, repeatable releases
* **Analyzed blockchain data:** utilized Bitquery to power analytics dashboards and reporting tools
* **Explored Solana ecosystem tooling:** integrated DexScreener API and Solscan Explorer for on-chain insights
* **Mastered Advanced Database Systems:** studied transaction management, indexing, and distributed database concepts
* **Applied Advanced Software Engineering practices:** utilized design patterns, UML modeling, and version control strategies
* **Specialized in Python application programming:** practiced asynchronous programming, packaging, and unit testing
* **Understood Cloud Computing fundamentals:** learned IaaS, PaaS, and serverless models across AWS and GCP
* **Studied Database Theory & Applications:** focused on ER modeling, normalization, and query optimization
* **Covered Software Testing & Quality Assurance:** employed test planning, automated test frameworks, and QA metrics
* **Explored Advanced OS, Compiler Design & Algorithms:** engaged with concurrency, parsing, code generation, and complexity analysis

Software Consultant **Wipro Technologies** July,2021 – Aug,2023

* **Developed end-to-end SAP UI5 Fiori applications**, utilizing XML views and Smart Controls to streamline manufacturing material movements.
* **Extended OData V2/V4 services** for real-time ERP–MES integrations across PP, EWM, PM, and QM modules.
* **Engineered dynamic UI logic** with Two-way and Expression Binding for user-role dashboards and multilingual support.
* **Designed reusable UI5 components**, reducing frontend development time by 30%.
* **Integrated AWS-hosted REST APIs** via SAP Cloud Connector for real-time event triggers and alerts.
* **Implemented advanced debugging workflows** using Chrome DevTools, Postman, ST05, and SAT to trace UI to ABAP logic.
* **Automated end-to-end testing** with QUnit, OPA5, and ABAP Unit integrated into GitHub CI/CD pipelines.
* **Conducted SWOT analyses** during requirements gathering to inform solution architecture and risk mitigation.
* **Facilitated Agile/Scrum ceremonies**, including sprint planning, daily stand-ups, and retrospectives, improving team velocity by 25%.
* **Led stakeholder workshops** aligning deliverables with IRDAI and SIPCHEM regulatory standards for fintech and insurance projects.
* **Built RESTful microservices** with Java Spring Boot, exposing secure endpoints consumed by SAP and third-party apps.
* **Integrated SOAP web services**, bridging legacy enterprise systems with modern SAP solutions.
* **Developed custom CAPTCHA generators** using Canvas API to secure customer-facing portals.
* **Created rich UI experiences** with React to prototype internal tools and improve accessibility.
* **Leveraged Python (NumPy, Keras)** to prototype ML models for predictive maintenance and quality assurance.
* **Architected real-time data pipelines** with WebSockets streaming IoT sensor data to Fiori dashboards.
* **Automated CI/CD workflows** using GitHub Actions, Jenkins, and CircleCI for seamless frontend and backend releases.
* **Containerized applications** with Docker and managed orchestration via Kubernetes and Helm charts.
* **Tuned API rate limiting and caching** with NGINX and Cloudflare for high-availability SAP interfaces.
* **Implemented event-driven architectures** with Kafka and RabbitMQ for decoupled integration workflows.
* **Optimized SAP HANA performance** using code pushdown (AMDP, FOR/REDUCE) and efficient Open SQL.
* **Developed RF UIs for handheld scanners** with EWM RF Framework, improving warehouse accuracy by 25%.
* **Customized SAP Screen Personas**, reducing transaction steps by 40% and enhancing user productivity.
* **Administered business analysis sessions**, capturing user stories, process flows, and acceptance criteria.
* **Performed root-cause debugging** to resolve production incidents within SLAs.
* **Conducted comprehensive UI and integration testing** to validate end-to-end functionality across systems.
* **Collaborated cross-functionally** with infrastructure, database, and security teams for end-to-end deliveries.
* **Authored technical documentation and training materials** for end users and support staff.
* **Ensured IRDAI compliance**, implementing audit logging and controls for regulated insurance applications.
* **Delivered SIPCHEM ERP enhancements**, enabling precise asset tracking and compliance reporting in the petrochemical sector.

Intern **CTS**  June,2020 – May,2021

* Developed **Python** scripts to automate data logging tasks, reducing manual effort by 50% and improving data accuracy.
* Implemented robust **logging** functions to capture system events and process outputs, streamlining troubleshooting.
* Utilized **Git** for version control, participated in code reviews, and managed feature branches to maintain code quality.
* Gained hands-on experience with **Agile/Scrum** by attending daily stand-ups, sprint planning, and retrospective sessions.
* Created **unit tests** with **pytest** and **unittest**, increasing test coverage and preventing regressions in automation scripts.
* Automated data extraction from REST APIs using **Python requests** and scheduled workflows via **cron**, ensuring timely data availability.
* Authored technical documentation and user guides, contributing to the team’s internal knowledge base and onboarding materials.
* Explored **CI/CD** concepts and assisted with Jenkins pipeline configurations to automate deployment tests and builds.

**Independent Projects**

**Solana Ecosystem Toolkit**

* Tech: Python· Solana Web3.js · Phantom Wallet · DexScreener API · Solscan API
* What you built: CLI and web utilities for key generation, on-chain data retrieval, and market analysis.
* Impact/metrics: Incorporated in 3 open-source projects; processed 5K+ data points daily.

**Encrypted Solana Chat App**

* Tech: FastAPI · WebSockets · Solana Web3.js · PyNaCl
* What you built: P2P chat system where messages are encrypted and anchored as Solana transactions.
* Impact/metrics: Ensured end-to-end encryption with <150ms messaging latency on devnet.

**Crypto Transaction Outlier Detector**

* Tech: Python · Scikit-learn · Pandas · Flask · Jupyter
* What you built: Isolation Forest–based service to flag anomalous crypto transactions in real time.
* Impact/metrics: Detected 98% of simulated outliers; deployed as a RESTful microservice.

**Binance Automated Trading Bot**

* Tech: Python · Binance API · CCXT · Pandas · NumPy · WebSockets
* What you built: Algorithmic trading bot executing market and limit orders with risk management strategies.
* Impact/metrics: Averaged 2% monthly ROI over 6 months; managed 1,000+ trades per day.

**Age, Gender & Ethnicity Predictor**

* Tech: Python · TensorFlow · Keras · NumPy · Pandas · OpenCV
* What you built: A convolutional neural network to predict age, gender, and ethnicity from facial images.
* Impact/metrics: Achieved 85%+ accuracy on a 10K-image test set; processed images at 90ms per inference.

**Dashboard MERN Application**

* Tech: MongoDB · Express.js · React · Node.js · Chart.js · Bootstrap
* What you built: Interactive analytics dashboard with authentication, role-based views, and custom charting.
* Impact/metrics: Supported 100+ daily active users; average API response under 200ms.

**Selenium Web Automation Framework**

* Tech: Python · Selenium · pytest · GitHub Actions
* What you built: Automated end-to-end testing suite with dynamic data-driven test scenarios for web apps.
* Impact/metrics: Reduced manual regression testing time by 70%; integrated nightly CI pipeline.

**Cloudflare Automation Scripts**

* Tech: Python · Cloudflare API · Terraform · Docker
* What you built: IaC scripts to automate DNS provisioning, firewall rule updates, and cache purges.
* Impact/metrics: Reduced deployment time to under 5 minutes; maintained 99.99% uptime.

**Smart SAP UI5 Forms**

* Tech: SAP UI5 · Fiori · JavaScript · XML · OData
* What you built: Adaptive UI5 controls and smart forms that auto-adjust based on user roles and data context.
* Impact/metrics: Improved form submission speed by 30%; reused across 5+ business-critical apps.

**Cross-Platform Packaging & Extensions**

* Tech: Electron · PyInstaller · WiX Toolset · Android Studio · HTML/CSS/JS
* What you built: Packaged desktop apps into EXE/MSI installers, mobile APKs, and browser extensions.
* Impact/metrics: Streamlined distribution pipelines, reducing build times by 60%.

**Background & Interests**

* Self-driven software engineer with a passion for pioneering Web3 and blockchain innovations that expand economic freedom.
* Deeply curious about decentralized architectures, cryptographic security, and the intersection of finance and emerging technologies.
* Advocate for privacy-first design, building end-to-end encrypted systems for real-time communication and transaction integrity.
* Active open-source contributor—authoring developer guides, prototyping utilities for Solana and Ethereum ecosystems.
* Enthusiast of AI/ML integration in practical applications, from vision-based classification to anomaly detection in financial data.
* Enjoys collaborative hackathons, tech meetups, and speaking at workshops to mentor peers on full-stack and blockchain development.
* Lifelong learner committed to staying at the forefront of DevOps, cloud-native practices, and performance engineering.

**Place & Availability**

* **Timezone:** America/Chicago (UTC-05:00)
* **Willing to:** Remote / Hybrid / On-site
* **Availability:** Available immediately