



Lead Software Engineer and Technical Architect with 16+ years of experience spanning enterprise, Web3 infrastructure, and game development. Proven record of leading high-impact engineering teams, designing scalable architectures, and delivering secure, user-focused solutions in blockchain, SaaS, and real-time systems.

Portfolio

atcweb3.com/

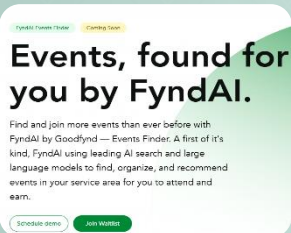
Linkedin: [in https://www.linkedin.com/in/andrew-thomas-carl/](https://www.linkedin.com/in/andrew-thomas-carl/)

Email: AndrewThomasCarl@outlook.com

Location: Greater Harrisburg Area, PA, United States

Phone: 443-929-9526

Experience



Launched AI Event Finder.

AI-Powered Lead Generation: Developed an AI-driven event scraping tool using Gemini and OpenAI APIs to extract detailed local event data, generating automated leads for vendors to contact to book their own events.

Infrastructure & Performance: Refactored API architecture to a scalable V3 pattern, improving maintainability, performance, and reliability of vendor

Integration Testing: Built comprehensive integration tests with mock application and MongoDB databases to ensure system stability across complex workflows.

Content & Marketing: Created product-focused marketing landing pages to drive feature adoption and ensure cohesive user messaging.

Contact: Dean Thrasher (SVP) - email: dean.thrasher@gmail.com | 202-302-7667

Lead Software Engineer

Goodfynd | August 2024 – August 2025

Empowering the future of mobile food

SaaS Subscriptions: Led the design and deployment of a Stripe SaaS subscription system, including feature enhancements for billing flexibility.

Chief Technology Officer

FBCoins (Funtoken) | April 2024 – August 2024

FUNToken is the one-stop gaming token. Top 600 on CMC

Auditing: Ensured zero codebase vulnerabilities, reviewed rollback risks of the FUN bridge, and analyzed FUN holder data.



Launched Funtoken Website.

Rebuilding: Recruited a new dev team after 64 candidate reviews and 15 interviews. Hired 2 expert full-stack engineers.

Website: Launched in days using NextJS. Enhanced UX, added blog API, animations, automated WebP conversion and sitemap.

GameHub: Pitched and built a new brand direction using web3 trends. Designed framework, UX, and monetization model to grow community.

Blockchain Audits: Led 2 investigations tracing stolen funds across bridges and wallets to KYC exchanges.

Contact: Khalid Ibrahim (CBDO) - email: Kmamoun@gmail.com



FunHub Figma Designs

Skills - Expert



Analytics: Research tests (Evapco). Blockchain audits (Glitter, Funtoken). Platform usage (Goodfynd)



APIs: Bridge API (Glitter). Blogs API (Funtoken). Dashboard API (Goodfynd)



Bridges: Built Algo-Sol bridge, USDC bridge on ETH, Poly, Algo, Sol, Tron, Avax, Arb, Op & ZkEVM. (Glitter)



C#: Thermal software (Evapco). Game development (Re3Studios). Client websites (BlueModus). APIs (Goodfynd)



JSON: Dynamic content (Re3 Studios), blogs (Glitter), bridge data (Glitter) and AI Event Extraction (Goodfynd).



Reporting: Technical publications (Evapco) [1] [2]. Safemoon blockchain analysis. (Doxxlocker) [3].



Unity: Extensive engine work on procedurally generated voxel game, Satus (Re3 Studios)



VB.NET: Extensive work on thermal software (Evapco)

Skills - Proficient



Architecture: Lending-Borrowing & Bridges (Glitter). GameHub (Funtoken)



Blockchain: RPC & API connections with Algo, Sol, Tron, EVMs, Layer 2s.



Cloudflare: Multiple websites, DNS, pages. (Glitter, Funtoken)



Digital Ocean: Deploying 8 droplets (Glitter). 1 Droplet, 2 Apps (Funtoken)



Email Marketing: Email templates for multiple clients (BlueModus)



ESLint: Added to all new JS/TS projects (Glitter, Funtoken)



Express: API server for Glitter Bridge

Experience (Cont)



Certified in 2.5 Weeks.

Web Developer Lead

BlueModus | September 2023 – April 2024

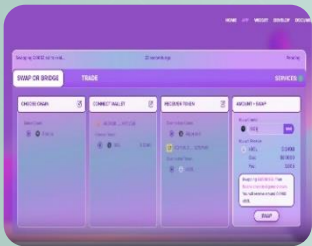
BlueModus is an agency that supports website development for CMS marketing sites.

Kentico: Without prior knowledge of CMS systems, I was able to get certified in Kentico Xperience 13 in the first 2.5 weeks on the job.

Search: I optimized an API sync between Netforum and Kentico, reducing update time from hours to minutes. Also worked with Azure Cognitive Search.

Email Marketing: Built dynamic email templates using MJML and complex Kentico macros for personalization, ensuring they work in any email client.

Contact: Joel Anderson (Director) - janderson@bluemodus.com



Glitter Blockchain Bridge.

Principal Software Engineer

Glitter Finance | May 2022 – August 2023

Glitter is a blockchain bridge for the everyday user.

SDK and API: Built the primary SDK for internal and third-party use, and developed a real-time blockchain polling system tracking 10 chains.

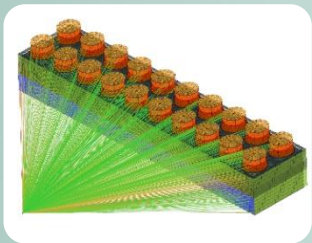
Token Bridges: Developed and deployed TEAL contracts for an Algorand-Solana bridge, led USDC bridging to 8 blockchains, oversaw frontend implementation, and contributed to an EVM bridge deployment.

Building Dev Team: With 220 candidates and 60 interviews, I filled 10 positions.

Bridge Explorer: Created a unified bridge explorer displaying all transactions and live metrics across three Glitter bridges for full transparency and monitoring.

Luster Protocol: Co-designed the Luster lending-borrowing prototype with yield optimization, installment-based borrowing, and stable tokenomics.

Contact: Khalid Ibrahim (COO) - email: Kmamoun@gmail.com



Custom Sound Modeling.

Thermal Software Engineer

Evapco-Evapttech | December 2008 – March 2021

EVAPCO, Inc. is an industry-leading manufacturing company for worldwide heat transfer applications.

Thermal Software: Modernized VBA to .Net WPF, deploying to Azure using MSSQL and Azure functions, Includes graphs and macros.

Acoustic Software: Developed advanced sound prediction tools with detailed path modeling, environmental effects, and dynamic 3D visualizations of cooling tower acoustic behavior.

Thermal Expertise: With 12+ years of thermal analysis and design experience enhancing components and testing systems, I authored a comprehensive 90-page design guide and co-authoring two CTI-published papers.

Contact: Mark Huber (Director) - email: mhuber@evapco.com | 410-756-2600

Skills - Proficient (cont)



GitHub: 3 repos (Re3 Studios), 15 repos (Glitter), 10 active repos



Hiring: Hired 10 positions (Glitter), Hired 2 positions (Funtoken)



JavaScript: Server and front-end (Glitter), websites (Funtoken)



Kentico: Multiple client website builds (Bluemodus)



Management: 5 devs & 4 projects (Glitter), 2 devs & 2 projects (Funtoken)



MS SQL: Project & user data storage (Evapco)



Node.js: Algo-Sol & USDC bridge (Glitter), RPC poller (Glitter)



RPCs: Quicknode/Ankr & Etherscan API & CMC, Coingecko prices (Glitter)



Smart Contracts: Automated security analysis of 100,000 BNB contracts



TypeScript: SDK (Glitter), Websites (Funtoken, Glitter, [my portfolio](#))

Skills - Experienced



Algorand



ASP.NET



Azure



Confluence



CSS3



Gimp



HTML5



Inkscape



Jest



Jira



Next.js



npm



PostgreSQL



Postman



Python



React



Rust



Solidity



Swagger



TailwindCSS



Websocket



Winforms



WordPress



WPF

Skills - Limited

AWS

Django

Docker

Elasticsearch

MongoDB

Nginx

Sitecore

Andrew T. Carl

Lead Software Engineer | Blockchain Expert | Web3 Architect

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Portfolio: <https://atcweb3.com>

Summary

Lead Software Engineer with over 15 years of experience in industrial engineering, software development, and Web3 architecture. Strong track record in leading development teams, architecting scalable systems, and delivering secure, user-friendly software across blockchain, SaaS, and game development industries.

Professional Experience

Chief Technology Officer

Funtoken | Apr 2024 – Aug 2024

- Audited smart contracts and analyzed rollback vulnerabilities in the FUN bridge.
- Recruited two expert full-stack developers after reviewing 64 candidates and conducting 15 interviews.
- Launched a modern website using NextJS with enhanced UX, WebP conversion, animations, and automated sitemap generation.
- Designed framework, UX, and monetization strategy for new GameHub brand direction.
- Led forensic investigations tracing stolen funds through cross-bridge blockchain transactions to KYC exchanges.

Lead Software Engineer

Goodfynd | Aug 2024 – Aug 2025

- Designed and implemented a full-featured SaaS billing and subscription management platform leveraging Stripe APIs for automated payment processing, invoice generation, and refund orchestration, including fee column normalization, usage-based billing, and plan upgrade/downgrade pathways.
- Executed end-to-end data migration workflows for user, organization, and billing entities within a distributed NoSQL architecture backed by MongoDB, ensuring referential integrity, schema validation, and backward compatibility.
- Engineered a modular microservices backend following a V3 RESTful API schema and controller structure pattern, supporting stateless interactions, versioning, and compatibility with OAuth2-secured endpoints via Auth0.
- Refactored legacy API endpoints to adopt token-based authentication strategies and centralized middleware for fine-grained authorization control, enabling scalable vendor management solutions.

- Spearheaded DevOps automation for CI/CD pipelines using GitHub Actions and ECR-based Docker containers, enhancing deployment agility and reducing memory overhead via optimized caching layers.
- Developed and deployed automated integration and regression test suites using Jest, Postman, and Swagger contracts to simulate real-world transactions, ensure data consistency, and verify multi-service interactions.
- Implemented full-stack features across a TypeScript/React frontend and Node.js/Express backend, leveraging Redux state management, dynamic form schemas, and atomic component design.
- Delivered lead generation automation using OpenAI and Gemini LLM APIs to identify geo-targeted event metadata, parse unstructured data into JSON, and persist structured vendor opportunities into MongoDB collections with indexing and TTL constraints.
- Authored high-conversion marketing landing pages using TailwindCSS and React for product features such as Advanced Invoicing, Point-of-Sale (POS), Online Ordering, and Customer Kiosks, ensuring continuity in UX/UI and message hierarchy.
- Actively participated in Agile/Scrum ceremonies including sprint planning, grooming, retrospectives, and cross-functional stakeholder reviews using Jira and Confluence.
- Collaborated with design and analytics teams to deliver user-centric experiences backed by A/B testing, funnel analysis, and behavior tracking.

Web Developer Lead

BlueModus | Sep 2023 – Apr 2024

- Earned Kentico Xperience 13 certification within 2.5 weeks.
- Reduced Netforum API sync time from hours to minutes and implemented Azure Cognitive Search.
- Created MJML-based dynamic email templates using Kentico macros for consistent rendering across email clients.

Principal Software Engineer

Glitter Finance | May 2022 – Aug 2023

- Conducted 60+ interviews from 220+ applicants, building a 10-person dev team.
- Developed TEAL contracts for Algorand-Solana bridges; led USDC bridge rollout across 8+ chains.
- Built SDKs, real-time RPC pollers, and bridge explorers aggregating transaction metrics across bridges.
- Co-architected the Luster lending protocol with novel tokenomics (prototype phase).

Thermal Software Engineer

Evapco-Evaptech | Dec 2008 – Mar 2021

- Migrated thermal tools from VBA to .NET WPF; deployed via Azure using MSSQL and Azure Functions.
- Created 3D acoustic visualization software for cooling tower sound analysis.
- Authored a 90-page thermal design manual; co-authored 2 Cooling Tower Institute papers.

Key Skills

Expert: C#, Unity, VB.NET, JSON, Analytics, Blockchain Bridges, Reporting

Proficient: APIs, Express, Node.js, GitHub, Smart Contracts, JavaScript, TypeScript, Cloudflare, Digital Ocean, MS SQL,

Kentico, Email Marketing, RPCs, ESLint, Management

Experienced: Python, React, Rust, Solidity, Next.js, PostgreSQL, Azure, Confluence, Swagger, TailwindCSS, Jest, Jira, HTML5, CSS3, WordPress, WPF

Limited: AWS, Docker, Sitecore, Django, MongoDB, Elasticsearch, NGINX

Education

B.S. in Mechanical Engineering

University of Maryland Baltimore County, 2008

GPA: 3.978/4.0

Communication & Professional Skills

- Leadership, Project Management, Strategic Thinking, Initiative
 - Problem-Solving, Critical Thinking, Resilience, Creativity
 - Time Management, Organization, Attention to Detail
 - Adaptability, Flexibility, Teamwork, Communication
 - Integrity, Professionalism, Customer Service
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Publications & Projects

Publications: Co-authored 2 technical papers for the Cooling Tower Institute

Projects: Algo-Sol and USDC bridges (Glitter), Thermal/Acoustic software (Evapco), Stripe SaaS system and AI lead generator (Goodfynd)

References

- **Joel Anderson**, Director at BlueModus – janderson@bluemodus.com
 - **Khalid Ibrahim**, CBDO at Funtoken – kmamoun@gmail.com
 - **Mark Huber**, Director at Evapco-Evaptech – mhuber@evapco.com – 410-756-2600
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Contact Summary

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