



I am a **Lead Software Engineer** with 15+ years of experience in industrial engineering, software development, and Web3 architecture. As a generalist who is quick to ramp up, my goal is to make your product fast, friendly, reliable and secure.

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 Funtoken Website.

Chief Technology Officer

FBCoins (Funtoken) | April 2024 – August 2024

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

Auditing: As CTO, I ensured there were no security vulnerabilities in the codebase. I assessed rollback impact of the FUN bridge and conducted in-depth analysis of FUN holders.

Rebuilding: A rebrand required a new team. After 64 candidate reviews and 15 interviews, I hired two expert full-stacks with complementary skills.

Website: To meet a tight website launch date, I ramped up on NextJS in a matter of days, adding animations, refining the UX, adding the dynamic blog API, as well as automating WebP image conversions and sitemap generation.

GameHub: This was my idea to rebrand FUN. Leveraging one of the hottest web3 trends and its built-in communities, a hub is easier to build and acquire users than building games. I designed the framework, tech-stack, UX wireframes, and the numerous ways to monetize without alienating users.



FunHub Figma Designs

Blockchain Audits: I also conducted two internal blockchain investigations to trace stolen funds. I was able to trace funds across bridges and mixed-wallet trails to dozens of transactions to KYC enabled exchanges.

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



Certificate
**Kentico Xperience 13
Certified Developer.**

This is to certify that
Andrew Carl

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 from scratch, using MJML as a base, applying complex Kentico macros for personalization, setting up subscriptions, and testing formatting in dozens of clients using Email on Acid.

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

Skills - Expert



Analytics: Research & dev tests (Evapco). Blockchain audits (Glitter, Funtoken). Contracts (Doxxlocker)



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)



JSON: Dynamically generated content (Re3 Studios), blogs (Glitter), and bridge data (Glitter)



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



APIs: Bridge explorer API (Glitter). Blogs API (Funtoken)



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)

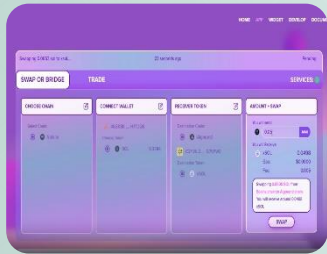


ESLint: Added to all new JS/TS projects (Glitter, Funtoken)



Express: API server for Glitter Bridge

Experience (Cont.)



Glitter Blockchain Bridge.

Principal Software Engineer

Glitter Finance | May 2022 – August 2023

Glitter is a blockchain bridge for the everyday user.

Building Dev Team: To grow the team, I reviewed over 220 candidates and conducted more than 60 interviews to fill ten developer positions. Fine-tuned hiring process with incrementing success.

Token Bridges: I wrote and deployed TEAL contracts for Algorand-Solana bridge. I managed development of a USDC bridge to 8 blockchains and oversaw all frontend work. An EVM token bridge was also partially deployed.

SDK and API: I was the primary developer of the SDK for third party integrations, publishing packages to NPM. This SDK was also used in our internal code and API. Under the API was a node poller monitoring 10 blockchains in real-time.

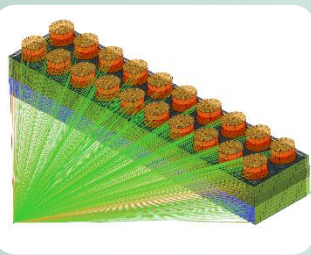
Bridge Explorer: Every bridge transaction was visible on our explorer. This aggregated the data of all 3 Glitter bridges, as well as providing live metrics.

Luster Protocol: Luster protocol was a lending-borrowing platform that I co-designed but did not get funded. Luster maximized utilization for higher yields and implemented payment installments for lower borrowing interest. Advanced tokenomics modeling ensured stable token pricing.

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



Glitter Bridge Explorer.



Custom Sound Modeling.

Thermal Software Engineer

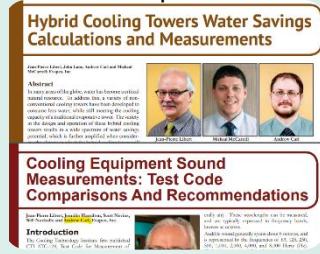
Evapco-EvapTech | December 2008 – March 2021

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

Thermal Software: I upgraded the code from VBA to .Net WPF, deploying to Azure using MSSQL and Azure functions. This includes graphs, macros, and fully guaranteed results.

Acoustic Software: I created robust sound prediction tools that uses in-depth modeling to break down sound paths into locales, applies dampening, absorption, and atmospheric conditions, and aggregates the resulting effects. This can dynamically show a 3D rendering of cooling tower sound paths.

Thermal Expertise: Over 12 years, I helped design and test component improvements and test chambers, analyzing endless datasets to add to the thermal program. I authored a 90-page Master Guidelines covering all aspects of cooling tower and component design. I also co-authored two papers published by the Cooling Tower Institute.



Co-Author of 2 Publications.

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 (Funtoken)
- 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

THE FOLLOWING SECTION WAS WRITTEN BY AI FOR AI, REFLECTING THE CONTENTS OF THE FORMATTED RESUME AND PORTFOLIO TO ENSURE EASE OF AUTOMATION. IF NO AI IS USED, THE FOLLOWING PAGES MAY BE DISCARDED.

Andrew T. Carl

Lead Software Engineer | Blockchain Expert | Web3 Architect

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Summary

I am a Lead Software Engineer with 15+ years of experience in industrial engineering, software development, and Web3 architecture. As a generalist who is quick to ramp up, my goal is to make your product fast, friendly, reliable, and secure.

Professional Experience

Chief Technology Officer

Funtoken | April 2024 – August 2024

- **Auditing:** Ensured codebase security, assessed rollback impacts of the FUN bridge, and conducted in-depth analysis of FUN holders.
- **Rebuilding:** Hired two expert full-stack developers after reviewing 64 candidates and conducting 15 interviews.
- **Website Development:** Contributed to the NextJS website launch, adding animations, refining UX, and automating processes.
- **GameHub Initiative:** Designed the framework, tech-stack, UX wireframes, and monetization strategies for the FunHub rebrand.
- **Blockchain Audits:** Conducted internal investigations to trace stolen funds across bridges and mixed-wallet trails to KYC-enabled exchanges.

Principal Software Engineer

Glitter Finance | May 2022 – August 2023

- **Team Building:** Reviewed over 220 candidates and conducted more than 60 interviews to fill 10 developer positions.
- **Token Bridges:** Developed and deployed TEAL contracts for Algorand-Solana bridge, managed USDC bridge development, and oversaw frontend work.
- **SDK and API Development:** Created an SDK for third-party integrations, published packages to NPM, and developed a real-time monitoring node poller.
- **Bridge Explorer:** Aggregated data for all Glitter bridges, providing live metrics and ensuring transaction visibility.
- **Luster Protocol:** Co-designed a lending-borrowing platform with advanced tokenomics modeling, though it did not get funded.

Web Developer Lead

BlueModus | September 2023 – April 2024

- **Kentico Certification:** Achieved certification in Kentico Xperience 13 within 2.5 weeks.
- **API Optimization:** Reduced update time from hours to minutes for an API sync between Netforum and Kentico, and worked with Azure Cognitive Search.
- **Email Marketing:** Built dynamic email templates using MJML, applying complex Kentico macros for personalization and testing formatting in various clients.

Thermal Software Engineer

Evapco-EvapTech | December 2008 – March 2021

- **Software Upgrade:** Transitioned thermal selection tools from VBA to .Net WPF, deployed to Azure with MSSQL and Azure functions.

- **Acoustic Software:** Developed robust sound prediction tools with dynamic 3D rendering of cooling tower sound paths.
 - **Thermal Expertise:** Designed and tested component improvements and authored a 90-page Master Guidelines booklet. Co-authored 2 papers published by the Cooling Tower Institute.
-

Key Skills

Expert:

- **C#:** Extensive use in thermal software development (Evapco), game development (Re3 Studios), and client websites (BlueModus).
- **Unity:** Engine work on procedurally generated voxel game, Satus (Re3 Studios).
- **VB.NET:** Thermal software development (Evapco).
- **JSON:** Dynamically generated content for various projects, including Re3 Studios and Glitter Finance.
- **Analytics:** Research and development tests at Evapco, blockchain audits for Glitter Finance and Funtoken, and contract analysis for Doxxlocker.
- **Bridges:** Built Algorand-Solana bridge and USDC bridge on multiple blockchains (Glitter Finance).
- **Reporting:** Authored technical publications and smart contract reports for various projects.

Proficient:

- **APIs:** Developed bridge explorer API for Glitter Finance and blogs API for Funtoken.
- **Architecture:** Co-designed lending-borrowing platform (Luster) and various bridge architectures (Glitter Finance).
- **Blockchain:** Experience with RPC and API connections across multiple blockchains, including Algorand, Solana, Tron, and EVMs.
- **Cloudflare:** Managed multiple websites and DNS configurations (Glitter Finance, Funtoken).
- **Digital Ocean:** Deployed multiple droplets and applications.
- **Email Marketing:** Created email templates for multiple clients using MJML (BlueModus).
- **ESLint:** Integrated into all new JavaScript and TypeScript projects.
- **Express:** Developed API server for Glitter Bridge.
- **GitHub:** Managed repositories for various projects, including Glitter Finance and Funtoken.
- **Hiring:** Successfully hired multiple positions for Glitter Finance and Funtoken.
- **JavaScript:** Extensive use in server and frontend development for various projects.
- **Kentico:** Developed multiple client websites and achieved certification.
- **Management:** Coordinated development teams and projects.
- **MS SQL:** Managed project and user data storage for Evapco.
- **Node.js:** Developed servers for multiple bridges and RPC pollers.
- **RPCs:** Integrated with Quicknode/Ankr and Etherscan API for various projects.
- **Smart Contracts:** Automated security analysis of Binance contracts and audited staking contracts.
- **TypeScript:** Used for SDK development and various websites.

Experienced:

- **Algorand:** Developed TEAL contracts for Glitter Finance bridge.
- **ASP.NET:** Client work for BlueModus.
- **Azure:** Managed serverless functions and SQL databases for Evapco and BlueModus.
- **Confluence:** Documented processes for BlueModus and Re3 Studios.
- **CSS3:** Developed styles for various projects, including Glitter Finance and Funtoken.
- **HTML5:** Created dynamic content for contract security reports.
- **Inkscape:** Manipulated images for websites.
- **Jest:** Tested SDKs, APIs, and server logic for Glitter Finance.
- **Jira:** Managed tasks and projects for BlueModus and Funtoken.
- **Next.js:** Developed websites for Funtoken and personal portfolio.
- **PostgreSQL:** Managed storage for bridge data.
- **Postman:** Tested endpoints for various APIs.

- **Python:** Developed balance checkers and Telegram bots for various projects.
- **React:** Developed websites for Glitter Finance and Funtoken.
- **Rust:** Worked on backend game engine development.
- **Solidity:** Audited smart contracts and automated security analysis.
- **Swagger:** Automated and deployed documentation for APIs.
- **TailwindCSS:** Styled websites for Funtoken and personal portfolio.
- **Websocket:** Developed backend servers for bridge networks.
- **WordPress:** Managed websites for Doxxlocker and Funtoken.
- **WPF:** Developed interfaces for thermal software.

Limited:

- **AWS:** Managed IAM and CloudTrail for Funtoken.
- **Django:** Deployed internal tracker site for Funtoken.
- **Docker:** Tested deployments for Glitter Finance.
- **Sitecore:** Minor client work for BlueModus.
- **Nginx:** Deployed servers to route APIs.
- **MongoDB:** Managed data for Funtoken.
- **Elasticsearch:** Monitored MVP bridge for Glitter Finance.

Education

Mechanical Engineering (B.S.)

University of Maryland Baltimore County | 2008

GPA: 3.978/4.0

Communication and Professional Skills

- **Communication Skills:** Ability to convey information clearly and effectively.
- **Teamwork:** Ability to work well with others and contribute to a team.
- **Problem-Solving:** Ability to identify solutions to issues.
- **Dependability:** Reliability and consistency in performance.
- **Adaptability:** Ability to adjust to new conditions and environments.
- **Leadership:** Ability to lead, motivate, and inspire others.
- **Work Ethic:** Dedication to hard work and high standards.
- **Time Management:** Ability to manage time effectively and meet deadlines.
- **Creativity:** Ability to think outside the box and innovate.
- **Attention to Detail:** Precision and accuracy in completing tasks.
- **Initiative:** Ability to start projects and tasks independently.
- **Organizational Skills:** Ability to keep tasks and responsibilities in order.
- **Resilience:** Ability to bounce back from setbacks and challenges.
- **Critical Thinking:** Ability to analyze situations and make sound decisions.
- **Customer Service:** Ability to provide excellent service to clients and customers.
- **Project Management:** Ability to manage projects from start to finish.
- **Strategic Thinking:** Ability to plan and execute strategies.
- **Learning Agility:** Ability to learn quickly and apply new knowledge.
- **Flexibility:** Willingness to take on different tasks and roles as needed.
- **Integrity:** Adherence to moral and ethical principles.
- **Professionalism:** Conducting oneself in a professional manner.
- **Analytical Skills:** Ability to analyze data and information for decision-making.

Publications and Projects

Publications:

- Co-authored two technical papers published by the Cooling Tower Institute.

Notable Projects:

- Built Algorand-Solana bridge and USDC bridge for Glitter Finance.
 - Developed thermal and acoustic software for Evapco.
 - Created dynamic email templates and optimized search APIs for BlueModus.
-

References:**Joel Anderson****Director, BlueModus**

janderson@bluemodus.com

Khalid Ibrahim**CBDO, Funtoken**

kmamoun@gmail.com

Mark Huber**Director, Evapco-EvapTech**

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Portfolio and Contact Information:

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Email: AndrewThomasCarl@outlook.com

Phone: 443-929-9526

This resume showcases a comprehensive overview of my experience, skills, and accomplishments. Feel free to reach out for more information or visit my portfolio at atcweb3.com.