
Key Differentiators

- 30+ Year Veteran of Software Engineering.
- 15+ Years of JavaScript/TypeScript experience.
- Expert in Web Frameworks including Vanilla, Web Component, Ember, Angular, React.
- Expert in NodeJS and related technology.
- Architected and Engineered Cloud Solutions in AWS and GCP.
- Led Teams from 2 to 20 people.
- Passionate Open Source author.
- Local Tech Community organizer and mentor.

Experience

Chief Architect / Lead Engineer

ReturnLogic inc, Camp Hill, Pennsylvania

June 2022
to July 2023

- Architected plan to move ReturnLogic's static AWS EC2 infrastructure to a dynamic EventBridge driven ECS/Fargate based multi-region, multi-tenancy cloud architecture.
- Mentored entire team and individual developers in communication, architecture, engineering best practices, and software quality.
- Lead day to day operations of small platform focused team to deliver platform level systems to make the entire code base more standard, secure, stable, and consistent.
- Championed systems such as unified logging and configuration, common architecture and systems, and enforcement of code and testing standards.

Director of Software Engineering / Lead Engineer

Whitebox Technology, Baltimore, Maryland

August 2019
to May 2022

- Lead day to day operations of entire Engineering Directorate including growing team from 5 engineers to 20 engineers.
- Designed and implemented entire Engineering department's communication and process and company culture of Software excellence.
- Mentored entire team and individual developers in communication, architecture, engineering best practices, and software quality.
- Served as Lead Engineer for Systems Team, responsible for implementing innovative systems to deliver faster, more efficiently, and at scale
- Served as Lead Experience Engineer fostering and implementing consistent cross product common solutions to better enhance the company brand and the end user experience.
- Designed and delivered technical solutions across the entire company on everything from visualizations to automated conveyance systems.

Founder

The Awesome Engineering Company, Laurel, Maryland

July 2018
to August 2019

- Started The Awesome Engineering Company to productize personally developed open source solutions.

Distinguished Software Engineer & Chief Architect for CyberSecurity

SAS Institute inc, Ellicott City, Maryland

October 2013
to July 2018

- Chief Architect for the SAS Cybersecurity product line overseeing technical vision from inception to release.
 - Acted as Lead Researcher for new implementations and technology experiments advising senior management on feasibility and direction
 - Designed and implemented backend and frontend technologies for the entire product from conception to delivery in multiple languages/frameworks.
 - Advised on all aspects of the product including deployment, installation, operations, scaling, testing and documentation.
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User Experience Technologist & Principal Software Engineer

Vision Systems & Technology Inc., a SAS Company (VSTI), Ellicott City, Maryland

October 2008
to October 2013

- Served as UI Team Lead and project Technical Expert actively participating in all aspects of leadership from management to architecture to mentoring.
- Design and implementation of complex, dynamic and robust user interfaces and complex visualization for customers using NodeJS, JavaScript, HTML, CSS, Groovy, Grails, Servlets, REST, Web Technology concepts.
- Regularly advised as a Full Stack Engineer on all facets of the technology stack from OS to Build/Configuration to Data services.
- Lead User Interface design and development across multiple projects.

User Experience Technologist

DDK Technology Group, Chantilly, Virginia

November 2006
to October 2008

- Designed and implemented cutting edge User Interfaces in support of federal government technology efforts leveraging HTML, CSS, JavaScript, Java Servlets, JSP, XML, and XSL in an Ajax Methodology.
- Served as mentor in Web Technology Concepts, Ajax Methodologies, JavaScript, and Cross browser integration efforts.
- Provided expertise and advice to multiple projects and teams throughout development life cycle to encourage Usability and User-Forward design.

Software Engineer IV

McDonald Bradley, Herndon, Virginia

Matrixx Group, Herndon, Virginia

November 2005
to November 2006

Principal Software Engineer

General Dynamics, Arlington, Virginia

Software Engineer II

Ajilon Consulting, Rockville, Fairfax & Arlington, Virginia

October 2001 to
October 2005

Senior Product Engineer

Starbase Corporation, Alexandria, Virginia.

November 1999
to October 2001

Build & Release Engineer

Concept Five Technologies, Burlington, Massachusetts.

March 1999
to November 1999

Computer Services Coordinator/Developer

Northeastern University School of Law, Boston, Massachusetts.

September 1993 to
March 1999

Computer Programmer & Audio/Visual Technician

Masconomet Regional, Boxford, Massachusetts.

September 1985 to
June 1987

Computer Skills

Web Technology	Full Stack Engineering (OS to Client), Ajax Methodology, Web Technology concepts, Browser Normalization, JavaScript, HTML, CSS, TypeScript, Web Components, Ember, Angular, AngularJS, React, PrototypeJS, JSON, XML, XSLT, HTTP
Javascript/Typescript Technology	NodeJS (since v0.4.x), JavaScript, ECMAScript 2015 to present including ES6, NPM, Express, Fastify, Pino, Winston, Clustering, Child Processes, Worker Threads, ES Classes, Proxy, Reflect, async/await, ES Modules
Java Technology	Java, Groovy, Java Swing, Abstract Windowing Toolkit (AWT), Java 2D, Grails, XML DCD, XML Schema, XSLT, Java Servlets, JSP, JDBC, Java Messaging Service (JMS), RMI, Sockets, Multi-threading, Java WebStart
Cloud Technology	Amazon RDS, Auroa, EC2, ECS, Fargate, MQ, Lambda, S3, SQS, EventBridge; Google Cloud Functions, PubSub, Compute Engine; Serverless framework.
Other Programming	C#, SQL, Perl, Access, Pascal, C, C++, CORBA, BASIC, FORTRAN, COBOL, 80x86/68000/RISC Assembly, Unix Shell Scripting, DOS/NT Scripting
Data Storage	Postgres, MariaDB, Elasticsearch, Logstash, Redis, MySQL, Oracle, Microsoft Access, SQL, ODBC
Development Tools	VSCode, Atom, SublimeText, Symantec Visual Café, Borland JBuilder Enterprise, Eclipse IDE, Microsoft InstallShield, Git, CVS, WinCvs, Subversion
Theoretical & Strategical	Web Technology Concepts, Ajax Methodology, Object Oriented Design, Compiler Design, Network Planning, Infrastructure & Strategy, Operating System Design
Operating Systems	Microsoft Windows (11, 10, 7, Vista, XP, 2000, NT, 9x, ME, 3.x); UNIX/Linux (RedHat, Centos, Mint, etc.), VAX/VMS, Apple Macintosh OS/X, WSL
Networking	TCP/IP, Microsoft Windows Networking, Banyan VINES, IPX, Ethernet
Hardware	PC Compatible, Macintosh, Switches, Routers, Bridges, Cabling
Applications	Apache Web Server, Tomcat, SOLR, ANT; Microsoft Internet Information Server, Access, FrontPage, Outlook, Explorer, Excel, Word, Visio; Canvas; Photoshop, Photostyler; Macromedia Director, Fireworks; Cuacho Resin; Mozilla Firefox

Education

September 1993 to June 1996	Northeastern University. Boston, Massachusetts. Candidate for Bachelor of Science Degree in English Literature with minors in Computer Science and Education. GPA 3.40 / 4.00
September 2003 to January 2008	George Mason University. Fairfax, Virginia. Candidate for Bachelor of Individualized Studies in Human Computer Interaction. GPA 3.73 / 4.00

Community

- Standards
 - **Initiated the FocusTraversal API proposal** – currently being incubated by the W3C for inclusion in the W3C HTML Standard.
<https://github.com/awesomeeng/FocusTraversalAPI>
- Open Source
 - **ZephJS** – Framework for authoring Web Components
<https://github.com/awesomeeng/zephjs>
 - **AwesomeLog, AwesomeConfig, AwesomeSever** – NodeJS server libraries.
<https://github.com/awesomeeng>
 - **npmbox** – CLI Utility for packaging NPM packages for offline deployment
<https://github.com/arei/npmbox>
 - node-untappd, functionary, threadful, licenses-extractor
<https://github.com/arei>
- Speaker
 - **Advancing Focus**
JSConf US 2019
<https://github.com/arei/talks/blob/master/AdvancingFocus/details.md>
 - **The Morality of Code**
NodeInteractive North America (November 2016)
<https://github.com/arei/talks/blob/master/MoralityOfCode/details.md>
 - **We Are Hacks and Have Been Stealing Code for Years**
JSConf Last Call (December 2015)
with Todd Gandee
<https://github.com/arei/talks/blob/master/CreativeBorrowing/details.md>
 - **Writing Code for Other People**
CharmCityJS
 - **Introducing ZephJS**
CharmCityJS
<https://github.com/arei/talks/blob/master/IntroZephJS/details.md>
 - **Building Awesome - Introducing AwesomeServer, AwesomeConfig, AwesomeLog**
CharmCityJS
<https://github.com/arei/talks/blob/master/BuildingAwesome/details.md>
 - **Why are you Awaiting to use Async?**
CharmCityJS
<https://github.com/arei/talks/blob/master/AwaitingAsync/details.md>
- Outreach
 - **Node Web Server Frameworks Working Group (2020 to Present)**
<https://github.com/nodejs/web-server-frameworks>
 - **CharmCityJS Organizer (2019 to Present)**
<https://charmcityjs.org>
 - **NodeSchool Baltimore Organizer (2015 to 2017)**
<https://nodeschool.io/baltimore>

Certifications and Memberships

- Certified ScrumMaster
- Member: Association for Computing Machinery – Human Computer Interaction

Design Examples

Source code available on GitHub at <https://github.com/arei> and <https://github.com/awesomeeng>.

References

Available upon request.
