

Thomas Holloway

Austin, TX / 786-512-2964 / nyxtom@gmail.com

nyxtom.dev / github.com/nyxtom / linkedin.com/in/thomas-holloway

Senior Software Developer - [Netcuras Inc.](#) - Austin, TX - Nov 2015 - Present

Technical lead and core contributor for implementing d3.js dashboards designed to solve the problem of infrastructure monitoring without a complicated user experience.

- Built a dashboard capabilities system to monitor 1000s of devices with automated discovery, metrics aggregation, inferable widgets, plugins and system/company-wide JSON queryable YAML definitions
- Wrote plugins for Netapp, VMWare, Meraki, MongoDB, Elastic, PostgreSQL, Netflow, Syslog, TCP, and UDP within a distributed collector architecture.
- To handle Netflow/Syslog traffic I implemented a backlog capable Node.js stream followed by debugging, instrumenting, and profiling with cpu tracing and heap snapshots to maintain consistent throughput and handle network connectivity issues. To provide customers with high level visibility of network traffic, I wrote a number of different visualizations, top lists, and search aggregation queries for the dashboard UI.
- Integrated Mapbox for visualizing 100s of devices in a hierarchical clustered layout
- Built a connected graph in d3.js with a force-graph layout to provide visibility of SNMP networks
- Improved responsiveness of web app from reading through React and Aurelia's source code to understand and build upon on cooperative scheduling and binding behaviors with cached queries, jsonpath expression templates, virtualized components, and web workers

(JavaScript, HTML/CSS, Aurelia, React.js, MongoDB, Redis, TCP/IP, REST, Elastic, D3.js, AJAX, Node.js, Express.js, Python, Go, LevelDB, TCP/IP, Jenkins, Ansible, Shell, Cent OS, VMWare, Netflow, Syslog, UDP, SNMP, JSONPath, Webpack, Babel)

Creator - [Nuvi.com](#) - Salt Lake City, UT - 2011 - 2014

Launched social media analytics platform for +1000s of brands processing +1000000s of tweets, facebook posts, web articles within high fidelity visualizations, reporting, and dashboard UI.

- Addressed requirements in sentiment analysis, topic modeling, concept discovery, trend detection, word associations for brand identity by teaching myself machine learning
- Crafted >100 d3.js visualizations for sentiment, topic modeling, clustering, real-time posts, reports, infrastructure monitoring, usage, billing and more.
- Automated the generation of interactive and customizable executive brand reports with cached and generated HTML/SVG/CSS that could be e-mail/printed/shared. This accelerated sales and customer onboarding due to the nature of high level accessibility and user experience.
- Awarded patent [#US20190104188A1](#) for work in systems and methods for visualization of social content.

(JavaScript, HTML/CSS/SVG, MongoDB, Elastic, Redis, TCP/IP, AJAX, REST, D3.js, C#, Asp.net, Node.js, Express.js, Jenkins, Cent OS, AWS, Azure)

Senior Software Developer - [Evernote](#) - Austin, TX - 2015

Orchestrated project upgrade to maintain relevance in current market by converting existing editor to a cross-platform implementation in JavaScript, CSS, HTML.

- Read React.js reconciliation and implemented a tree and diff algorithm for Evernote with Markdown support
- Responsible for triaging issues with adaptive screen sizes, additional front-end bug reports by working with quality assurance engineers and adapting to changing business requirements.

(Javascript, React.js, HTML/CSS, Git, Jira, REST, AJAX, Markdown)

Senior Software Developer - [Savvy Sherpa](#) - Salt Lake City, UT - 2014

Researched and prototyped for Adobe's clickstream ad retargeting by applying event sourcing and implementing a custom stream processing engine and search engine with Go and Redis.

(Go, Redis, HTML/CSS, REST, AJAX, JavaScript, Neo4J, Git)

Additional Experience as a **Software Developer** for Medicity, Threefold Studio, and Rentler - 2008-2011

EDUCATION

Neumont University in Salt Lake City, UT

B.S. in Computer Science

TECHNICAL PROFICIENCIES

Solid understanding of fundamental web technologies (REST, HTTP, TCP/IP, JSON, AJAX, JavaScript)

Familiar with AWS, Google Cloud, Digital Ocean, Azure Deployments

Developed web applications using React.js, Svelte, Aurelia, and Angular

Solid understanding of CSS3/SASS Modular Components

Experience with D3.js Data Visualizations varied across industries

Strong experience in MongoDB, Express.js, JavaScript/Node.js, Elastic Search, Redis, HTML/CSS

Background in end-to-end product development, feature design, cross-functional team collaboration

Comfortable with foundations in user experience analysis and design systems

Comfortable working with machine learning concepts

Languages: JavaScript, Python, Go, Rust, C#, HTML/CSS, Node.js, Swift

Libraries: React.js, Aurelia, D3.js, Express.js, Svelte, Angular

Projects: MongoDB, Elastic Search, Redis, Jenkins, Neo4J, PostgreSQL, SQL Server, LevelDB

Platforms: AWS, Azure, Google Cloud, Digital Ocean, Cent OS

ACTIVITIES AND AWARDS

Competed in AP Computer Science/Math Sense, CS Honor Society, Awarded [Patent #US20190104188A1](#) for front-end web visualization of social media analytics, Author of Book [Games and Graphics in Rust with WGPU](#), Presented at Developer Conference on Neural Networks, Machine Learning and JavaScript Web Development

PROJECTS

[Reconcile.js](#) - Reconcile is a simple diff, patch and merge implementation inspired by Facebook's React.js approach to virtualizing the dom and performing updates through reconciliation. The goal of this library is to provide a very simple utility for performing diffs, patches and merges of html documents. (JavaScript)

[Salient](#) - salient is a natural language processing and machine learning toolkit. Salient contains many common tasks from sentiment analysis, part of speech tagging, tokenization, neural networks, regression analysis, wiktionary parsing, logistic regression, language modeling, mphf, radix trees, vocabulary building, (JavaScript)

[Dive.js](#) - Various standard scuba diving (favorite hobby) algorithms, formulas and calculations. (JavaScript)

[Drawing with WebRTC](#) - Series of articles I wrote on real time collaborative drawing in Canvas and WebRTC. Learned a lot about CRDTs, pulling from experience from my work at Evernote and helping teach my daughter about computational thinking. (JavaScript, WebRTC, Redis, Canvas, CRDTs)