Nathaniel Blumberg

A savvy software engineer and team leader with over 20 years of experience. Blending coding, design and usability to produce intuitive software while using communication, documentation, and education to create highly performing engineering teams.

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Online resume

Skills

Access, **Adobe Analytics**, **Adobe Target**, **Agile**, **AJAX**, Akamai, **AMD**, **Angular**, API Gateway, AppleScript, ASP, Aurora, **Babel**, **Backbone**, **Bootstrap**, Bugzilla, **C**, **C++**, **C4**, **Chrome**, Cloudflare, **CloudFormation**, CodePipeline, **CommonJS**, **Confluence**, **cookies**, CORS, CSRF, CSS, CVS, cwRsync, **CXF**, DB2, DevTools, Dojo, **dotCMS**, **DynamoDB**, e-hawk, **Eclipse**, ECR, ECS, **Edge**, **ehcache**, EJB persistence, ElasticSearch, **ESLint**, **Excel**, Facebook Graph API, **Facebook Webhooks**, Figma, **Firefox**, Firehose, **Flash**, **Flex**, FlinkCEP, FreeMarker, **G Suite**, **git**, **github**, **Glance**, Gloo Edge, Gloo Mesh, **Google Analytics**, **Grafana**, Graphite, **grunt**, **Handlebars**, Helm, **HTML**, httpd, **IAM**, **IE**, **Illustrator**, ImageReady, InCopy, **IntelliJ**, **Istanbul**, **Jasmine**, **Java**, **JavaScript**, **JBoss**, JDBC, **Jenkins**, **Jest**, **jetty**, JIRA, **JMX Console**, **jQuery**, **jQuery-UI**, **JSDoc**, **JSON**, **JSONP**, **JSP**, **JSTL**, **JSX**, **JUnit**, **karma**, Kinesis, **Lambda**, **Lerna**, **localStorage**, **Lucene**, Material UI, **Mockito**, mPulse, **Mustache**, **mvn**, **New Relic**, **node**, **npm**, **nvm**, **Optimizely**, **Photoshop**, **plantUML**, **postMessage**, **PowerPoint**, **Protractor**, puppet, RabbitMQ, RCS, **React**, **RequireJS**, **REST**, **S3**, **Safari**, **SASS**, **SCSS**, Selenium, **sessionStorage**, SOAP, **SourceTree**, Splunk, **Spring**, **SQL**, **SQS**, **StatsD**, styled components, **svn**, Tealium, Tiles, **Tomcat**, Trello, Twiddle, **TypeScript**, UML, V8, VBScript, Velocity, Verdaccio, VersionOne, Visio, Visual Studio, VSS, **Webpack**, **Word**, **wro4j**, WSDL, **XML**, **XPath**, **XQuery**, **XSLT**

Experience

HubSpot   📅 June 2022 - Present

Staff Software Engineer

- Work on frontend build tooling supporting the HubSpot engineering organization.
  JavaScript, node, TypeScript
- Work on in-house alternative to npm to support HubSpot's "evergreen" model that automatically updates package dependencies to their latest versions.
  JavaScript, node, S3, TypeScript
- Work on UI displaying the HubSpot frontend package ecosystem and package interdependencies.
  JavaScript, node, React, S3, TypeScript
- Set up npm packages for consumption through in-house package manager.
  JavaScript, node, npm
- Address npm, AWS, and Blazar security issues.
  IAM, JavaScript, node, S3, Verdaccio

- Analyze jasmine/Chrome V8Coverage data to produce code coverage reports for HubSpot frontend packages.
  `Chrome`, `DevTools`, `Istanbul`, `JavaScript`, `node`

Constant Contact 📅 April 2011 - May 2022

(formerly Endurance International Group, Inc., acquired Constant Contact in 2016, went private again in 2021)

Advisory/Senior Principal Software Engineer 📅 August 2016 - May 2022

Most senior development role within the organization. Responsibilities also include those of prior positions.

- Architectural design of software across teams in a distributed, micro-service environment.
- Act as a member of the architectural group, submitting and steering large-scale initiatives for the engineering organization. Act as the leading member of the front end architectural sub-group.
- Serve as technical lead for several areas of the company code base: front end architecture, front end design system, microservice data aggregation and caching, marketing campaign listing, site navigation by configuration, universal js code, and user tracking.
- Spearhead technological solutions to improve application monitoring, performance, code coverage, automated testing, security, and development velocity.
- Cultivate efficient teams from the ground up by mentoring junior team members through their technical and engineering growth until they are independent high performers.
- Provide leadership and stability during multiple periods of engineering and product management team transitions.
- Promote technical education, documentation, and best practices across the engineering organization.
- Provide APIs, web forms, standards & best practices for marketing to provide messaging and analytics to collect data in product without disrupting engineering development or application stability.

Principal Software Engineer 📅 August 2014 - August 2016

Generally, the most senior development role within a team. Responsibilities also include those of prior positions.

- Architectural design of software within the team's purview.
- Represent the engineering team in technical matters when liaising with other teams inside and outside the engineering organization.
- Determine and prioritize non-feature-driven engineering work within the team.

Senior Software Engineer II 📅 April 2013 - April 2014

- Responsible for common front end functionality throughout the product and supporting microservices: e.g. site navigation by configuration, help, marketing/sales/support messaging, and user tracking.
- Responsible for the hub pages of the product that list user activity and branch into the various wizard flows, as well as supporting microservices.
- Act as mentor to other team members.
- Facilitate team velocity (a measure of productivity under Agile development).

Senior Software Engineer 📅 April 2011 - April 2013

- Responsible for the email wizard UI and microservices.
- Lead a project within the team.
- Oversee team code quality.

Key projects

Sign up forms v2 📅 January 2022 - Present

- Combine existing hosted lead generation landing pages and embedded-in-customer-website sign up forms offerings

  ```
  ECR, ECS, Java, JavaScript, Lambda, node, React, Webpack
  ```

SMS Marketing 📅 November 2021 - Present

- Collect mobile numbers and permission to be contacted via SMS marketing in existing lead generation landing page forms

  ```
  ECR, ECS, Java, JavaScript, Lambda, node, React, Webpack
  ```

Domain oriented microservice architectural design 📅 October 2021 - Present

- Help plan the future architecture of the combined company to use a domain oriented microservice architecture.

  ```
  C4, plantUML
  ```

Cross-company C4 diagrams 📅 October 2021 - Present

- Use code to model architecture of core company and acquisitions to form a living document and web hosted, hyperlinked diagrams allowing technical or non-technical users to start at a top-level view and dive down to code repositories.

  ```
  C4, plantUML
  ```

Page hosting in Gloo Mesh EKS 📅 September 2021 - Present

- Use code to model architecture of core company and acquisitions to form a living document and web hosted, hyperlinked diagrams allowing technical or non-technical users to start at a top-level view and dive down to code repositories.

  ```
  Gloo Edge, Gloo Mesh, Helm, Java, node
  ```

Unified front end design system 📅 August 2021 - Present

- Unify companies on a single front end design system. Determine the front end component library to start with and technologies/tooling to extend it into a full, customized design system. Perform a gap analysis between existing component libraries and enumerate use cases to be supported by the new system.

  ```
  Figma, Material UI, node, React, styled components, TypeScript, Webpack
  ```

Landing Pages 📅 April 2021 - Present

- Support customers editing and publishing web pages for capturing user contact information, publishing surveys, and static pages for advertising purposes.

  ```
  ECR, ECS, Java, JavaScript, Lambda, node, React, Webpack
  ```

Universal search 📅 January 2020 - Present

- Aggregate and index campaign, contact, and template data to provide a search service.

  ```
  API Gateway, CloudFormation, CodePipeline, ElasticSearch, git, Java, Jenkins, Lambda
  ```

Recommendations 📅 January 2020 - October 2020

- Helped to design a system surfacing recommendations to users. Recommendations could be submitted by multiple applications, sourced from the company's data lake, fed through a complex event processing framework, stored in a framework that resolves conflicts from different sources, and presented a unified API for listening to real time recommendation events or pulling events via a REST API.

```
API Gateway, Aurora, Firehose, FlinkCEP, JSON, Kinesis, S3
```

iCal integration 📅 December 2019 - June 2021

- Published marketing campaign scheduling data via iCal standard for integration with external calendar clients (e.g. Apple, Google, Outlook)
  ```
  API Gateway, CloudFormation, CodePipeline, DynamoDB, git, IAM,
  Jenkins, Lambda, S3, SQS
  ```

React refactor 📅 January 2019 - Present

- Reimplement major portions of the UI using React. Reorganize front end code into lerna repos and break common functionality into reusable npm libraries shared across the product.
  ```
  Babel, ESLint, JavaScript, Jenkins, Jest, JSX, Lerna, npm, nvm,
  React, SASS, Webpack
  ```

Campaign libraries 📅 January 2019 - Present

- Design and implement a series of JavaScript libraries centralizing the listing and display of customer campaigns and associating/implementing customer actions against those campaigns.
  ```
  Babel, ESLint, grunt, JavaScript, Jenkins, Jest, JSDoc, JSX, Lerna,
  npm, nvm, React, SASS, Webpack
  ```

Marketing calendar v2 📅 January 2019 - June 2021

- Reimplemented calendar view of customer campaigns to enable date-based-planning and searching.
  ```
  API Gateway, Babel, CloudFormation, CodePipeline, DynamoDB, ESLint,
  IAM, JavaScript, Jenkins, JSDoc, JSX, Lambda, Lerna, npm, nvm, React,
  SASS, Webpack
  ```

Campaign search 📅 September 2018 - January 2020

- Created cloud-based infrastructure and UI for campaign search. Aggregated all user-created content from disparate microservices, indexed it, and provided an API for running search queries against it. Polled for updates to keep indexed data current. Supported gradual roll out of the feature to the user base along with tools for managing and monitoring data processing.
  ```
  Angular, CloudFormation, CodePipeline, git, IAM, Java, Jenkins,
  Lambda, Lucene, New Relic, S3
  ```

Social media integrations 📅 March 2018 - October 2018

- Created a Facebook and Instagram integration presenting background social media activity on those platforms (e.g. posts, comments, replies, mentions from other users) as an interactive inbox.
  ```
  Facebook Graph API, Facebook Webhooks, Jest, React, Spring
  ```

Front end design system 📅 January 2018 - Present

- Help create and organize adoption of a new Bootstrap-convention and React based design system to centralize the product display layer to allow for rebranding and white-labeling at build time.
  ```
  Babel, ESLint, JavaScript, Jenkins, Jest, JSDoc, JSX, npm, React,
  SASS, Webpack
  ```

Marketing calendar 📅 January 2017 - January 2019

- Design and implement a calendar view of customer campaigns to enable date-based-planning and searching.
  ```
  Angular, Jasmine, Jenkins, karma, Spring
  ```

Guided tours

- Designed and implemented a framework to, by configuration, set up a system of user action triggers and prompts in product that launch step-by-step guided tours through specific product workflows
  dotCMS, ehcache, Jasmine, JavaScript, jQuery, jQuery-UI, JSDoc, JSON, karma, Spring

E-HAWK validation

📅 January 2016 - January 2017

- Tested users on log in for current or past suspicious or malfeasant behavior using e-hawk
  AJAX, Akamai, **CORS, CXF**, e-hawk, **grunt, HTML, Istanbul, Jasmine, JavaScript, JSDoc, JSONP, karma, npm, nvm**, RabbitMQ, **Spring**

Onboarding

📅 January 2016 - December 2016

- Designed and implemented several A/B tested variations of post-sign up questionnaires segmenting users into profiles, and providing different "first steps" guidance by profile.
  Jasmine, JavaScript, Jenkins, jQuery, JSON, karma, Spring

Homepages

📅 January 2016 - December 2016

- Designed and implemented a framework to, by configuration, easily spin up a series of different initial product experiences and homepages for new customers targeting specific market segments. Implemented A/B testing a tracking withing the different experiences.
  Angular, Jasmine, JavaScript, Jenkins, JSON, karma, Spring

In product messaging

📅 January 2015 - Present

- Design and implement a framework for marketing teams to display targeted messaging to specific user segments in product
  dotCMS, Jasmine, JavaScript, JSDoc, karma, localStorage, Optimizely, Spring, Tealium

Marketing campaigns pages

📅 January 2015 - December 2021

- Creat new home and listing pages unifying the separate products (email, events, social campaign, survey, etc.) into a single interface. Aggregate data from almost every microservice at the company into a single, high-performing, mobile-responsive page view. Help lead disparate teams to a common data model. Create entry points into the wizard flows for each product. Implement an automated onboarding checklist for new users. Support numerous user experience A/B tests.
  Adobe Target, AJAX, Akamai, **Angular**, Cloudflare, **cookies, CORS, CSS, CXF, ehcache, ESLint**, grunt, **Handlebars, HTML**, httpd, **Istanbul, Jasmine, Java, JavaScript, JBoss**, jetty, **jQuery, jQuery-UI, JSONP, JSP, karma, npm, nvm, Optimizely**, puppet, **SASS, sessionStorage, Spring, Tomcat**

Email wizard v2

📅 April 2012 - January 2013

- Re-implemented the email creation and management wizard flow again as a separate Spring application and microservice.
  AJAX, CXF, DB2, EJB persistence, **Java, JavaScript**, JDBC, **jQuery, JSP, Spring, SQL**

Distributed UI framework

📅 January 2012 - Present

- Architect and implement a configuration and iframe based web portlet framework to allow the company to break up the single "monolithic" application into separate teams, repositories, technology stacks, and deploy schedules while maintaining a unified UI. Architect and implement an

accompanying JavaScript API that is loaded and consumed in all applications and windows to provide common, inter-application and cross-domain functionality and communication. Support in-browser overrides of configuration data for development and testing against locally running applications.

`AJAX`, `Akamai`, `AMD`, `Babel`, `Cloudflare`, `cookies`, `CORS`, `CSS`, `ESLint`, `Glance`, `Google Analytics`, `grunt`, `HTML`, `httpd`, `Istanbul`, `Jasmine`, `Java`, `JavaScript`, `JBoss`, `Jenkins`, `Jest`, `jetty`, `JMX Console`, `jQuery`, `jQuery-UI`, `JSDoc`, `JSONP`, `JSP`, `karma`, `Lerna`, `localStorage`, `npm`, `nvm`, `Optimizely`, `postMessage`, `puppet`, `React`, `SASS`, `sessionStorage`, `Spring`, `Tealium`, `Tomcat`, `Twiddle`, `Webpack`, `XML`

Email wizard
📅 April 2011 - January 2012

- Re-implemented the email creation and management wizard flow using Spring POST-back form transitions.

`Java`, `JavaScript`, `jQuery`, `JSP`, `Spring`, `Tiles`

Stock image management system
📅 April 2011 - January 2012

- Streamlined the management of stock images available to customers.

`Excel`, `Java`, `JSP`, `Spring`

Earlier experience (including video game development and tool scripting) available upon request

Education

Tufts University

📇 *419 Boston Avenue Medford MA 02155*

📅 1998

Bachelor of Science | Computer Science, Human Factors & Ergonomics concentration | Summa cum laude

References available upon request