

David Idol

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WORK EXPERIENCE

Snap, Inc.

Aug. 2018 – Present

Engineering Manager – Developer Portals Team

Los Angeles, CA

- Directly manage and lead a team of six Engineers responsible for the online developer tools for [Snap Kit](#), [Snap Games](#), and [Snap Minis](#). Lead all scoping and execution of the product roadmap (including roadmap planning, sprint planning, daily standups, retrospectives, and post-mortems) to drive growth and adoption of developer platforms and improve ease of development.
- Architected and built the web SDK and serving APIs for [Creative Kit](#), which enabled sharing content and stickers from web pages into Snapchat for the first time on the platform – bringing in 400+ external partners for Snap
- After last-minute restrictions from Apple which put the Minis platform launch at risk, I rearchitected [Snap Minis](#) from scratch, using a local server instead of native code bridging and got personal recognition from CEO Evan Spiegel for the solution
- Built and deployed internal moderation tools used to quickly assign and approve/reject submissions from global developers. Created in-game content reporting for Snap Games and made it possible to render game assets directly inside the tool.
- Organized the Web Working Group at Snap and, as a member of the Web Tech Lead Council, helped make company-wide recommendations regarding web technologies, best practices, and full-stack hiring requirements
 - Led talks, including giving the first overview on React - which lead to company-wide adoption, internally-developed state management libraries based on Redux and Redux Saga, and internal component libraries
 - One of nine deciders across the company with authority to make final hiring decisions for the full-stack recruiting track
 - Set up all the internal JavaScript code sharing technology at Snap – including internal npm registry and CI pipelines
- Launched key internal company-wide tools, including the tools for hosting Q&A events and performance feedback reviews – working directly with executives on product requirements and data analysis

Engineering Lead – Geofilters Team

Mar. 2015 – Aug. 2018

- Tech Lead for the public [Create Your Own](#) web tool, allowing individuals and businesses to create their own filters on Snapchat
 - Developed in-browser tools (based on HTML SVG and canvas APIs) to edit and position text, images, etc. for users to customize and design their own images in real-time without the use of external software
 - Built React wrapper for Google Maps SDK to highlight any region on a map and easily create and target a geofence
 - Launched in worldwide markets, instrumented and evaluated analytics, and feature roadmap
- Lead developer and initial creator of internal Geofilter and Lens management tool
 - Developed synchronized targeting over multiple business locations which led to the launch of the first large-scale sponsored Geofilters, which contributed more company revenue than the entire ads business of Snapchat combined
 - Added support for dynamic Geofilters with live-updating data at sporting events, concerns, elections, etc.
 - Integrated geospatial indexing and full text search to easily sort through thousands of filters based on location or time
 - Developed a reservation system to help sales team visualize what sponsored filter inventory is available, reserved, etc.
 - Built access control system and auditing functionality to restrict access to sensitive data

Microsoft Xbox

Jun. 2013 – Feb. 2015

Software Engineer – [Xbox Live Compute](#)

Redmond, WA

- Xbox Live Compute was utilized by flagship games such as Forza Motorsport 5 and Titanfall; it allows them to publish their games on virtualized game servers hosted by Microsoft, with automatic scaling and load balancing
- Lead developer for the online Portal and Powershell command line tools used by game developers to upload their game server packages, manage their cloud game sessions and resources, and diagnose problems
- Developed complex frontend features for the Portal such as monitoring running games, viewing performance charts and graphs, and downloading logs and crash dumps
- Wrote and tested the backend service functionality for many features of Xbox Live Compute services, including a real-time pipeline to manage event data from running game servers as well as performance data querying

Google

Jun. 2012 – Aug. 2012

Software Engineering Intern – [Google Web Toolkit](#)

Mountain View, CA

- Primary developer of [JavaBean data validation for GWT](#) - added to Google's official release of GWT starting with version 2.5

- Provides a built-in framework for GWT developers to easily check if data (such as user-entered form data) is valid
- Had to be implemented entirely without [reflection](#), which is not used by GWT. This added significant technical challenge and required the use of alternate approaches, such as [deferred binding](#)
- Implemented via test-driven development; passes all official [JSR-303 Technology Compatibility Kit](#) tests to be 100% compliant with the JSR-303 standard
- Wrote the official [Google Developers reference page](#) about the feature

IBM

Jun. 2011 – Aug. 2011

Extreme Blue Intern

Austin, TX

- Worked on project to redesign IBM's virtual machine management software for its [Power servers](#) – allowing users to configure and manage up to 1,000 virtual machines
- Lead developer of front-end functionality; assisted in back-end development of Java API server
- Met directly with major IBM customers, and utilized their feedback in developing front-end functionality and user interface
- Presented completed project to top IBM executives (including IBM CEO [Sam Palmisano](#)) in Austin and New York City

True Ventures

Jun. 2010 – Aug. 2010

Android Application Developer - [True Ventures Fellowship](#)

Palo Alto, CA

- Worked on-site at [Valencell](#) as sole developer of Android application, which enabled Valencell to close multiple licensing deals
- Integrated with proprietary [Valencell PerformTek™](#) technology, which measures user's biometric data via sensors inside audio earbuds, to stream data wirelessly via Bluetooth SPP and display metrics in real time inside the application
- Developed features to access historical data via on-device SQLite database, allow the user to establish fitness goals, and allow multiple users to compete in fitness-related challenges

EDUCATION

University of North Carolina at Chapel Hill

May, 2013

MS Computer Science, BS Computer Science

Chapel Hill, NC

- Teaching Assistant (Fall 2012) for Professor [Kevin Jeffay](#) in COMP 530 Operating Systems
- Independent research paper analyzing differences between HTTP long-polling and Websockets with UNC Computer Science Professors [Diane Pozefsky](#) and [Jay Aikat](#)
- Conducted research on “big data” TCP packet flows using large-scale Apache Hadoop clusters

PROJECTS / OPEN SOURCE

[Keyboard and Mouse for Xbox xCloud](#) (TypeScript, React)

Browser Extension

- Developed browser extension by reverse engineering the Gamepad API and simulating analog controller inputs via mouse and keyboard input to control Xbox Cloud games with keyboard and mouse, which previously was not possible
- Over 90,000 active users across [Google Chrome](#) and [Microsoft Edge](#)

[Saber Song Patcher](#) (C#)

Windows Application

- Developed tool to distribute and patch copyrighted songs for the VR game Beat Saber without piracy (a common problem) - using hashing and “audio fingerprinting” technology to ensure a perfect result using legally-purchased songs
- Blog post about the tool: <https://medium.com/@idolize/beat-saber-the-future-of-custom-songs-d64756818be7>

[MSW HTTP Middleware](#) (TypeScript)

JavaScript Library

- Expanded capabilities of API mocking library [MSW](#) (4.7M downloads/month) to support direct HTTP calls via separate package
- Blog post announcement: <https://dev.to/kettanaito/spawn-an-http-server-from-your-mock-service-worker-request-handlers-2c19>

SKILLS & INTERESTS

- **Skills:** Typescript, React, React-Native, Redux, Node.js, Java, C#, SQL, GraphQL, Swift, Kotlin
- **Interests:** Drawing, traveling, video games, F1 and rally racing, motorcycles, skiing, cooking