David Idol

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WORK EXPERIENCE

Discord   Jun. 2023 – Present
Engineering Manager – Shop Team   *San Francisco, CA (Remote)*

- Lead the creation of a new top-level "Shop" surface in the Discord app, where users can purchase unique animated cosmetics for their Discord avatar and profile
- Ran multiple experiments to optimize purchase behavior, as well as introducing new features such as product bundles
- Launched the Discord Shop on iOS and Android with native IAP support

Snap, Inc.   Mar. 2015 – Feb 2023
Engineering Manager – Developer Portals Team   *Los Angeles, CA*

- Directly managed and lead a team of six Engineers responsible for the developer tools for Snap Kit and Snap Games
- 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 Snap Games platform launch at risk, I rearchitected the SDK 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

Software Engineer / Tech Lead – Geofilters Team

- 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
- Lead developer 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, concerts, 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*

- 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 perform complex validation logic across both client and server
  - 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*

- Led frontend development of 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.
- 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

PROJECTS / OPEN SOURCE

[Sold] 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
- 280,000+ 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, Node.js, Java, C#, SQL, GraphQL, Swift, Kotlin, Cypress
- **Interests:** Drawing, traveling, video games, F1 and rally racing, motorcycles, skiing, cooking