

# Nick Johnson

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## Experience

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### SpaceCraft

COCREATOR / SOFTWARE ENGINEER

Oct 2018 – Present

- Cocreated an open-source, in-browser REPL (Read-Eval-Print-Loop) where users can collaborate together in real time, using Node.js, WebSockets, and Docker.
- Implemented state synchronization in the front-end REPL terminal, using CRDT and eventual consistency to resolve conflicts.
- Reduced network latency by over 10% by removing the need to buffer outputs through server-side caching.
- Strengthened application security by isolating containers to prevent malicious user code from affecting the host system.
- Built a reverse proxy server from scratch to manage multiple user sessions and forward requests to the appropriate containers.
- Wrote a detailed case study: [spacecraft-repl.com/whitepaper](https://spacecraft-repl.com/whitepaper)

### Full-Stack Development (Freelance)

SOFTWARE ENGINEER

Mar 2016 – Jan 2019

- Developed a wide range of full-stack applications for open-source projects.

### Launch School

CONTENT DEVELOPER

Oct 2017 – Jan 2018

- Developed curriculum content for an online mastery-based software engineering school.

## Projects

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### Myflix

Rails, SQL

A VIDEO SUBSCRIPTION APPLICATION, SIMILAR TO NETFLIX.

### Postit

Rails, SQL

A SOCIAL NEWS AND DISCUSSION APPLICATION, SIMILAR TO REDDIT.

### Ticket Tracker

Rails, SQL

AN APPLICATION THAT MANAGES TICKETS BY TRACKING ISSUES AND CHANGES. OPTIMIZED TICKET COUNT SQL QUERY BY REDUCING IT TO  $O(1)$  FROM  $O(N)$ .

### Todo List

JavaScript

A TODO-LIST APPLICATION BUILT FROM SCRATCH USING VANILLA JAVASCRIPT.

## Skills

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**Back-end:** Node.js, Ruby, Rails, SQL, RESTful APIs

**Front-end:** JavaScript, React, HTML/CSS

**Other:** Linux, Bash, Vim, Docker, DevOps

## Education

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### Launch School

SOFTWARE ENGINEERING

Mar 2016 – Jan 2019

### University of California, Irvine

BA IN PSYCHOLOGY

Aug 2008 – Jul 2011

## Achievements

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**Codewars Top-100 Ranking**, Completed over 2000 coding challenges.

**Software Engineering Blog Writer**, Authored multiple articles with over 10,000 total views.