Gleb Arestov, Principal Frontend Engineer

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## Intro

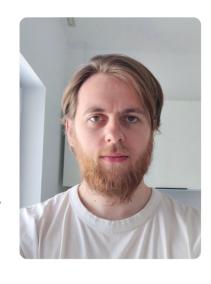
I've worked at 3 startups. I built a lot of things from ground (as **1st engineer at 2 startups** and as founder of indie hacker projects).

I'm really good at frontend apps that look & feel like desktop (web, electron, chrome extensions). Can make backend & CI to build & test from ground though.

90s speedrun video cv over my 14 years experience: <a href="https://youtu.be/T4NBv\_8wYPs">https://youtu.be/T4NBv\_8wYPs</a> (frontend part only)



- Browser for work meetsidekick.com, (1st engineer)
  - <sup>™</sup> 1 Product of the Day on Product Hunt (2020, Sidekick Browser).
  - 🐉 👥 #1 Product of the Week on Product Hunt (2020, Sidekick Browser).
- Music app <u>seesu.me</u> (founder, hobby project; combines last.fm, soundcloud.com, hypem.com, discogs.com, etc)
- Tizen App Challenge 2014
- Ohrome Apps contest of Google technology User Group 2010
- 🏮 🧴 Opera Widgets Challenge 2010
- Prototype of integration with apps platform utorrent (download & listen from torrents)
- Prototype of electron app with webtorrents lib (listen stream from files inside torrent)
- Marathon visualization (Runners density graph along curve path)
- (Fun fact) I got \$50 amazon gift card from BitTorrent company. For unpurposely sharing know-how to play mp3/video inside IE6/IE7 engine. BitTorrent used that to monetize utorrent app (which has millions of users)
- Found & highlighted memory leaks, suggest performance improvments to open source torrent protocol library
- o github.com/webtorrent/webtorrent/pull/382/files
- o github.com/webtorrent/webtorrent/issues/712#issuecomment-204273562
- github.com/webtorrent/webtorrent/issues/115









# Experience

2022	Founder, Indie Hacker	Linkkraft
2019 · 2021	Principal Engineer	Sidekick Browser
2018 • 2019	Lead Developer	Leroy Merlin
2018	Lead Frontend Developer / Backend Developer	Motion Tailor
2016 · 2018	Frontend Developer / Backend Developer	Trucker Path
2014 · 2016	Lead Node.js Developer	EuroChem
2013	Frontend Developer	Datalaboratory
2011 • 2012	Frontend Developer	Mamba
2010 - 2011	Frontend Developer	Masterhost
2009 - 2010	Junior Frontend Developer	Thematic Media
2008	Junior Frontend Developer	Exigen Services StarSoft

# My public talks on conferences

- FrontendConf 2015, Declarative goal setting programming approach, youtube.com/watch?v=vjMqtRG\_cV8
- HighLoad++ 2012, Browser comet connections multiplexing library (javascript, localstorage) youtube.com/watch?v=5TEaxF9KP9A

## Tech

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Git		•	•	•	•	•	•	•	•	•	•	•	•	•	•
HTML/CSS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
JavaScript		•	•	•	•	•	•	•	•	•	•	•	•	•	•
Chrome Extensions			•	•	•	•							•	•	
Node.js					•		•	•	•		•	•			•
Node.js streams API							•	•	•						
Electron								•				•			•
SVG						•	•				•			•	
React.js									•	•	•	•			
Redux									•	•	•				
MobX												•			
Webpack									•	•	•				
Svelte														•	•
Rollup												•	•	•	
TypeScript														•	
Pupetter/WebDriver											•	•	•	•	
Clojure										•					
PostgreSQL										•	•				
MySQL							•	•	•						
MongoDB					•					•					
Docker										•	•	•	•		
WebSockets/XHR Long Polling					•							•	•	•	
WebWorkers												•	•	•	
IndexedDB													•	•	
Flash API		•	•		•										
ActiveX API				•	•										
CI SaaS										•	•	•	•	•	
Python										0					
AWS										0					
Sphinx Search							0								
Performance/Memory profiling			•	•	•	•	•					•	•	•	
LevelDB															•
After Effects SDK											•				

# Notable tech applying and limitations bypassing to make product

### Linkkraft, Browser to be effective researcher & collector

History tree visualization 2d Canvas, Electron API (as input)

Offline snapshots Electron Content Scripts, Chrome Dev Tools

Protocol

State persistence LevelDB to save in-memory graph to disk



#### Sidekick, Browser for work

Performance of early prototype (fork of

Electron app)

Redesign architecture to

1. Use Electron Main/Render process & code

separation

2. Use BrowserView instead of <webview>



CI to build & test Electron app

Quick migration from Electron app to Chrome Extension (As part of moving from

Electron to own Chrome fork)

CI to build & test Chrome extension

History text search (Chrome history is not

suited for Sidekick case)

Chrome Extensions API, IndexedDB, Web Worker, performance profiling

Extensions API Content Scripts, JSON with declaration, messaging, Documents detection & global search

Have prepared architecture

IndexedDB

Adblocker Chrome Extensions API, RegExp Web Sockets (Pusher.js), Web Worker Live Sync for team workspace

#### TruckerPath, most popular map app for truckers

Payment info receiving automation Clojure/PostgreSQL. Bolt webhooks, Salesforce

APÍ

Lint Clojure code (CI) Python

Backup PostgreSQL (CI) Python, AWS



#### Seesu

Play music inside Opera Widgets / Chrome Flash API, iframe messaging extensions sandbox (No HTML5 audio,

flash limitation)

Background playback & live sync for popup. State separation, message incremental changes (Popup is alive only when open) of in-memory graph to popup, performance

profiling

Fast rendering of Chrome Extensions popup (Limitations: Popup is alive only when open; when React is not created yet)

Transform incremental changes of graph state to DOM atomic

changes, performance profiling

Allow to stream/play music from torrents

Btdigg.com, Electron, WebTorrents library, Node.js streams (pipe stream of file inside torrent from node is part of electron to http request/response stream so chrome part of electron can play it)

#### **EuroChem**

Provide near live updates for reporting system. Replace heavy (run once in day) SQL view by incremental updates

Node.js, MySQL. Hooks & dependency tracking inside proprietary MySQL driver. So, as soon someone commits changes to DB, we can track what dependency we should update & update it. Without need to rebuild whole report. (Hasura.io, but in 2015)

Fast download for big dumps of data

Node.is. Stream response of request (to Oracle db) to excel stream generating lib. User downloads file as soon as data received from

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#### Marathon visualization

Show dynamic of marathon in time JavaScript, SVG, performance profiling



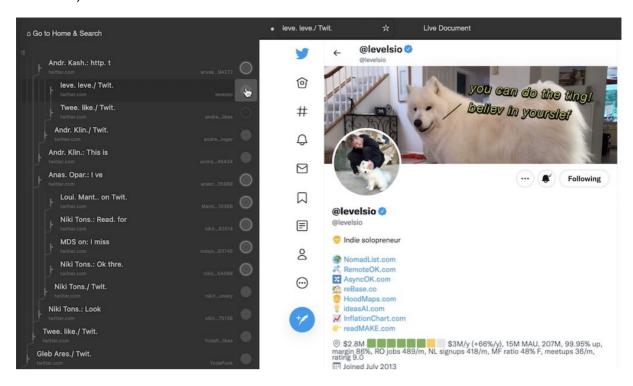
#### Mamba

Provide live updates; Save costs for expensive live connections. (Limitations: IE localStorage, XHR still a thing, Shared Web workers is not stable yet at that time)

Lib to share 1 long polling XHR across multiple tabs. Flash API,



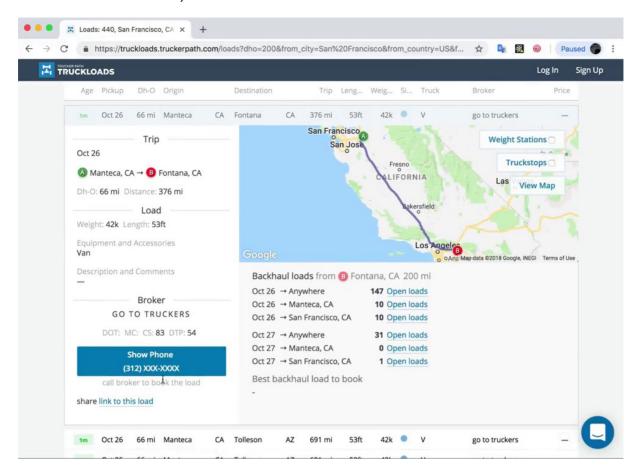
#### Linkkraft, Browser to be effective researcher & collector



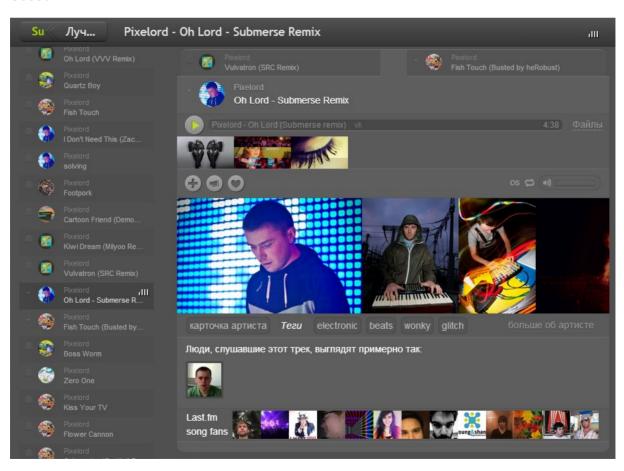
#### Sidekick, Browser for work



#### TruckerPath Truckloads, Loadboard for truckers



#### Seesu



#### **Marathon visualization**

