# **DAN OVED**

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### FULL STACK CREATIVE ENGINEER

Full-stack creative engineer who specializes in building highly-interactive applications. Proficient in user interface development, back-end engineering, hardware, and fabrication. Bridges the gap between creativity and technology.

# **TECHNICAL PROFICIENCIES**

Languages	Javascript, Python, Torch, C++, C, Ruby, Go
Frameworks:	Node.js/Express, TorchNN, Caffe, React, Redux, Rxjs, Arduino, Three.js,
	WebGL, OpenGL
Front-End	Webpack, HTML5, CSS, SVG, Sass
Unit Testing	tdd/bdd with mocha.js, chai.js, sinon.js, Karma, rspec
Databases:	PostgreSQL, Redis, MongoDb, Sql Server
Environment Setup	Unix/ubuntu, nginx, unicorn, capistrano, Windows Server
Methodologies:	TDD, Agile, Scrum, Sprint, continuous integration & build configuration
Fabrication:	Laser Cutter, 3d printing, CnC Router
Miscellaneous:	Computer Vision, Mixpanel, Git, RabbitMq, Distributed Algorithms

### **EDUCATION**

Masters Candidate ~ ITP at New York University, Expected Graduation of 2019

- Focus: Real-time computer vision with physical output.
- Blog: danioved.com/blog/

Non-Degree Masters Computer Science Student ~ New York University, 2017.

- Computer Vision taught by Rob Fergus
- Computer Graphics, Computer Vision taught by Daniele Panozzo

Bachelor of Science, Computer Science ~ Business Minor Tulane University, 2006

# PROFESSIONAL EXPERIENCE

Google Creative Lab - New York, NY Freelance Creative Technologist

Feb 2018 - Present

The Pursuit by Equinox Fitness - New York, NY Independent Contractor - Lead Full-Stack Javascript Engineer

June 2015 - Dec 2016

The Pursuit by Equinox is a gamified spin class that uses real time bike data to visualize performance and drive competition. It is currently in 42 locations across the US, has 1,200 classes and 35,000 riders per month, and deals with 500,000 points of data per class. The work we did on the project is best described in my talk at the NYC Node.js meetup: <a href="https://youtu.be/zo39p-30arg">https://youtu.be/zo39p-30arg</a>

• Lead a team that took a take legacy which was fragile and impossible to maintain, and rearchitected and re-built it from the ground up to be flexible and robust, with a single directional data-flow using redux on the server to centralize the state, rx to manage complex events, and react, three.js, and webgl on the client to render real-time visualizations. A suite of automated tests was added to speed up the development and release cycle. This reduced the time it takes to build and release a game from 4 months to 1.5, and decreased the time it took for data to reach the screens from the bikes from 2 seconds to 100 ms.

## Handwriting.io - New York, NY

September 2014 – May 2015

# Independent Contractor - Full-Stack Engineer

- Developed JavaScript widgets that would seamlessly integrate into partner websites, and let users type, render, and mail notes in their own handwriting.
- Developed APIs and documentation in Go to integrate with widgets and let api consumers send text to be rendered as handwriting.

#### SYPartners - New York, NY

January – August 2014

# **Independent Contractor – Full-Stack Engineer for Teamworks**

• Built front- and back-end for customer acquisition flows, using Javascript and Ruby on Rails. Setup Mixpanel environment and Braintree integration.

# **Tapactive – An ERA Accelerator Company** - New York, NY CTO & Co-Founder

October 2012 – November 2013

Co-Founded startup and was selected as one of 10 companies from over 1200 applicants to take part in the summer '13 Entrepeneurs Roundtable Accelerator program.

 Built and deployed Tapactive.com from the ground up. Solution included fully responsive website back-end built in Ruby on Rails and Node.js, Postgres and MongoDb, Braintree Payments integration, and production and staging environment setup on Softlayer Unix servers, using nginx, unicorn, and capistrano.

# **Blueprint Health Accelerator** - New York, NY **Floating Founder/Hackstar**

Summer 2012

# **Equinox Fitness** – New York, NY **Lead Web Application Engineer**

December 2010 – April 2012

Lead engineer on 5 person development team responsible for Equinox.com and consumer facing apps.

• Built Equinox.com and online membership sales from the ground up, using the Sitecore CMS Api and Asp.NET MVC.

#### CODE SAMPLES/OPEN SOURCE CONTRIBUTIONS

- The Voronoi Cellular Zoetrope, a physical animation generated by graphics shaders that loops seamlessly and infinitely: <a href="http://bit.ly/2nGnVr2">http://bit.ly/2nGnVr2</a>
- Audial Reality, a series of audio-reactive visuals in the browser built with javascript WebGI shaders, and React: audialreality.com, github.com/oveddan/audial reality
- Runner Up to the Soundcloud Irrational Fun competition <a href="http://bit.ly/1fS6lc9">http://bit.ly/1fS6lc9</a> Used a distributed max-heap algorithm to find the 20 best sequences out of the first billion digits of pi that resemble the Soundcloud log. Got runner up and scored highly on runtime performance and code quality. The winning entry took 760 seconds to run while mine took only 114 seconds.
- Created pull requests that were merged:
  - o react-three https://github.com/Izzimach/react-three/pull/69
  - o **react-native** <a href="https://github.com/facebook/react-native/pull/1632">https://github.com/facebook/react-native/pull/1632</a>
  - o **rspec 3.1** <a href="https://github.com/rspec/rspec-expectations/pull/600">https://github.com/rspec/rspec-expectations/pull/600</a>

# **MEETUP TALKS**

- **NYC Node.js** January 2014 Main speaker on testing in Node.js.
- **NYC Node.js** May 2014 Lightning talk about Node.js generators.
- **NYC Node.js** July 2016 Redux for Realtime Gaming, youtube.com/watch?v=zo39p-30arg