

JOHNNY DUNN

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Willing to relocate.

WORK EXPERIENCE

Full Stack Developer / Security Analyst — *Virtue Security in New York, NY*

- December 2016 - Present (Part-time)
- Developed dashboard for pen testers to keep track of injected cross-site scripting exploits, using Flask, SQL, D3.js, and Semantic UI.
- Received training on network and web app security / vulnerability assessment.

Junior Developer / Designer — *visualMerc in New York, NY*

- February 2016 - January 2017 (Part-time during school semesters; full-time in the summer of 2016)
- Rapidly prototyped VR / AR experiences for ad / marketing campaigns, and developed company IP (See AT&T award for [NPE](#) apps). Also worked in web dev (mostly WordPress-related; creating web banners; server admin for AWS)

Unity Consultant — *RPGA Studio, Inc in New York, NY*

- November 2015 - February 2016 (Part-time)
- Designed / programmed interactive VR experiences in Unity3D for a nonprofit involved in producing artistic, local community-focused works.

PERSONAL PROJECTS

Emote / Emoter / Eden — Aug. 2016 - Present jddunn.github.io/portfolio/blog/emoter

- Created and open-sourced a custom sentiment analyzer (naive Bayes classifier) called Emote that detects values for up to 3-6 emotional tones from a total of 36, using Python (NLTK / TextBlob, pandas, NumPy, SciPy, and scikit-learn).
 - Built a RESTful API and web app using Flask and Bootstrap. Created bulk analyzer feature for CSV files.
 - Standardized probabilities into percentages algebraically, based on grouping related / opposing tones in clusters, and on punctuation usage.
 - Manually classified 8000 sentences to build base database / corpus. Devised (unfinished) a machine learning system for unsupervised training.
- Integrated Emote into Emoter (in Python), a system for users to create and personalize their own chatbots with emotional intelligence and empathy.
- Bot analyzes user message for emotional tones, categorizes into clusters, then picks an appropriate database to respond from.
 - Conversations in matching databases are analyzed for similarity with input, and if sliding threshold is met, corresponding response is output.
 - Designed / developed Emoter website using three.js and Semantic UI.
- Used Emoter in an interactive fiction game [Eden](#), by using the player's dialog with a chatbot character drive a morality-based branching narrative.

DreamGazer — Jan. 2015 - Dec. 2016 jddunn.github.io/portfolio/blog/dreamgazer

- Made wearable prototype using an Arduino, pulse sensor, and EEG sensor (NeuroSky MindWave) with Processing to visualize / record dreams.
 - Made 3D printed plans for a combined VR / AR / EEG / tDCS headset, DreamGazer, based on working prototype, with VR UI in Unity.
 - Wrote sleep detection algorithm based on heart rate by testing for a dynamic BPM threshold that scales according to measured resting heart rate by user, eliminating false positives through multiple checks on timers.
 - Programmed musical triggers to play in stages of REM sleep, successfully resulting in lucid dreams. Automatically recorded / parsed biometric data into spreadsheets; created graphs demonstrating trials.

PORTFOLIOS

Tech:

<http://jddunn.github.io/portfolio>

GitHub:

<https://github.com/jddunn>

Photo / Film:

<http://jddunn-photography.com>

SKILLS

LANGUAGES: HTML, CSS, JavaScript (Node.js, AJAX, jQuery), Python, C# (Unity)

LIBRARIES: Flask, Django, D3.js, p5.js, three.js, NLTK, NumPy, SciPy, pandas, scikit-learn

FRAMEWORKS: AngularJS, Bootstrap, Foundation, Semantic UI

DATABASES: MySQL, SQLite, MongoDB, Redis

SOFTWARE: Unity, AWS, Adobe Creative Suite (Photoshop, Illustrator, Premiere, After Effects), Processing, WordPress, openFrameworks, Mettle, SketchUp, Fritzing, Ableton, FL Studio, Windows, Unix (Linux, Mac)

HARDWARE: Arduino, Raspberry Pi, Circuitry, PCB Design, CAD, 3D Printing, 3D Modeling, Laser Cutting, Sewing, Soldering, Leap Motion, Particle Photon, Intel Edison

AWARDS

2017 AT&T VR / AR Challenge Finalist

- One of two devs on THINKIMMERSIVE (from visualMerc); we created the VR / AR / apps of *National Park Experience*, and were chosen as one of five winning finalists. <http://npe100.com/>

XRC Labs Young Entrepreneurs

Residential Program - Spring Class 2017

- Awarded entry into a program fostering students from The New School with their own startup ideas (Chosen for [Emoter](#)).

EDUCATION

Parsons School of Design in New York, NY — *BFA in Design And Technology*.

3.1 GPA 2013 - 2017