

James Turk

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Experience

Princeton Gerrymandering Project

Princeton, NJ

PRINCIPAL ENGINEER

Jan. 2019 - Present

- Serve as principal engineer and architect for the Princeton Gerrymandering Project. Focused on building tools to help remove barriers between citizens, communities, and redistricters.
- Create tools to enable the collection & preparation of precinct data and coordinate with the wider technical community to tackle the problem of gerrymandering.

Open States

FOUNDER & PROJECT LEAD

Oct. 2016 - Present

- Founded team to establish Open States as an independent project upon closure of Sunlight Labs. Responsible for coordination of non-profit fiscal sponsorship and other logistics.
- Lead development and architecture for project to collect and standardize legislative information from from all 50 state legislatures and municipalities. Project uses Python, Django, lxml.
- Coordination of dozens of volunteer developers both virtually and at in-person hackathons.
- Paid mentorship of several Google Summer of Code students.
- Designed & implemented new publicly-accessible GraphQL API for the project.
- Updated EC2 infrastructure to utilize Lambda & ECS to drastically reduce scraping costs and improve API availability.

PBS

Arlington, VA

DIRECTOR, TECHNOLOGY

Sep. 2015 - Jan. 2019

- Led overhaul of internal data model for storage and curation of all PBS video metadata. Used by 300+ PBS stations and national producers.
- Architected new orchestration layer for communication between backend services and Mobile/OTT applications.
- Designed & implemented Elasticsearch powered search service for public media video assets.
- Evaluated upstream data providers and led overhaul of scheduling & localization APIs used by all PBS member stations.
- Provided technical leadership to two remote teams responsible for PBS backend APIs and internal tooling.

Orlando Sentinel

Orlando, FL

CONTRACT DEVELOPER

Sep. 2015 - Oct. 2017

- Built & maintained custom Florida Legislature tracking site and API for Orlando Sentinel.
- Also built several one-page apps as part of ongoing relationship with Sentinel after main project was complete.

Sunlight Foundation

Washington, D.C. & Boston, MA

DIRECTOR, SUNLIGHT LABS

Sep. 2014 - Jun. 2015

- Managed 20-person labs team responsible for all development, design, and systems administration.
- Provided guidance to entire organization on technology issues, internal and external.
- Assisted in planning of new projects, crafting proposals, and grant reporting.

OPENSTATES.ORG AND MUNICIPAL DATA TEAM LEAD

May 2010 - Sep. 2014

- Coordinated effort among several organizations to build standards for legislative data.
- Established and ran four-person Boston office for three years.
- Maintained Amazon EC2-based server infrastructure for project.
- Represented organization and project at wide variety of conferences.
- Managed project team consisting of three full-time developers, several interns, and community of 50 open source contributors.

DEVELOPER & OPEN SOURCE COORDINATOR

May 2007 - May 2010

- Projects included: crowdsourcing tools for federal spending and lobbying, Congress API used by major news and governmental organizations, nonprofits and campaigns, and community-organizing platform to mobilize Sunlight Labs volunteer community.
- All major work released as open source, often in form of reusable components;
- Primarily used Python, Django, Javascript, PostgreSQL, MongoDB.

Education

Rochester Institute of Technology

Rochester, NY

B.S., COMPUTER SCIENCE

2004 - 2008

- GPA: 3.95 - Graduated with Highest Honors
- Minor in Public Policy & Minor in Political Science

Skills

Languages Python · JavaScript · Go · C · C++ · Java · PHP · HTML 5 · CSS · JSON · XML

Technologies Django · PostgreSQL · PostGIS · React · MongoDB · Celery · Elasticsearch

Ansible · Docker · Fabric · nginx · uWSGI · Linux · Git · Vim

AWS EC2 · S3 · ECS · Lambda · SQS · SES · DynamoDB

Selected Presentations

Django Built A Nonprofit

Lawrence, KS

DJANGO BIRTHDAY

Jul. 2015

Invited to speak at conference celebrating 10 years of the Django web framework.

Open Civic Data

Washington, DC

PBS MEDIASHIFT COLLAB/SPACE

Nov. 2014

Presentation of Sunlight Foundation's work to audience of national media organizations.

Opening Government Data

Montreal, QC

HACKONS LA CORRUPTION

Nov. 2012

Presented ongoing civic tech work to audience of government and volunteer developers.

Open Data, Open States

Chicago, IL

NATIONAL CONFERENCE OF STATE LEGISLATURES SUMMIT

Aug. 2012

Presented ongoing state legislative work before audience of state legislators, staffers, and lobbyists.

Opening Government with Python

Atlanta, GA

PYCON US 2011

August 2011

Presented poster on civic tech projects at largest annual Python conference.

Open States Project

New York, NY

NEW YORK TIMES: OPEN

Oct. 2010

Presented Open States work at first New York Times: Open event to audience of journalists and developers.

Selected Open Source Projects

jellyfish

[HTTPS://GITHUB.COM/JAMESTURK/JELLYFISH](https://github.com/jamesturk/jellyfish) · [HTTPS://GITHUB.COM/JAMESTURK/GO-JELLYFISH](https://github.com/jamesturk/go-jellyfish)

Python, C, and Go implementations of string comparison tools such as Levenshtein distance, Jaro-Winkler, Soundex, and more.

scrapelib

[HTTPS://GITHUB.COM/JAMESTURK/SCRAPELIB/](https://github.com/jamesturk/scrapelib/)

Python utility library for scraping unreliable websites with features like forced-caching, retries, and request throttling.

django-markupfield

[HTTPS://GITHUB.COM/JAMESTURK/DJANGO-MARKUPFIELD/](https://github.com/jamesturk/django-markupfield/)

Custom field type for Django projects that stores markup (markdown, ReStructuredText, etc.) and pre-rendered HTML side-by-side.

validictory

[HTTPS://GITHUB.COM/JAMESTURK/VALIDICTORY/](https://github.com/jamesturk/validictory/)

JSON Schema-based declarative validation for data in Python dictionaries.