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   *Aug. 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/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/

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

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/

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