

# James Turk

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## Experience

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### Civic Eagle

Washington, DC

DIRECTOR OF PUBLIC DATA

Dec. 2020 - Present

- Continued in duties as Open States Project Lead.
- Work closely with product team to guide company-wide data strategy, balancing needs of commercial product and public good.
- Establish data processing best practices and lead technical decision making related to data pipeline.
- Provide mentorship to junior engineers and interns working on scrapers and data pipelines.

### Open States

Washington, DC

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 all 50 state legislatures.
- Coordination of large team of volunteer and contract developers both virtually and at in-person hackathons, including paid mentorship of several Google Summer of Code students.
- Designed & implemented new publicly-accessible GraphQL API for the project.
- Rebuilt several services to use Lambda & ECS to drastically reduce scraping costs and improve API availability.
- In April 2019, awarded Reynolds Journalism Institute grant, funding development of bill tracking features.
- In September 2019, awarded portion of a National Science Foundation C-Accel grant, funding full-time work on project.

### Princeton Gerrymandering Project

Princeton, NJ

PRINCIPAL ENGINEER

Jan. 2019 - Oct. 2019

- Served as principal engineer and architect for the Princeton Gerrymandering Project. Building tools with Python, Django, Postgres/PostGIS, ReactJS, and managing EC2 cloud infrastructure for national redistricting database.
- Led collaboration efforts with other major redistricting groups around the country on Open Precincts data standard, tool development, and building a shared pipeline for getting civic data into the hands of citizen redistricters.
- Additional responsibilities included guiding technical hiring and overall technology decisions for the project.

### PBS

Arlington, VA

DIRECTOR OF TECHNOLOGY

Sep. 2015 - Jan. 2019

- Served as technical lead to two teams responsible for PBS backend APIs and orchestration layer.
- 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 for seamless transition between scheduling APIs used by 300+ PBS member stations.

### Sunlight Foundation

Washington, DC & Boston, MA

DIRECTOR, SUNLIGHT LABS

Sep. 2014 - Jun. 2015

- Managed 20-person labs team responsible for all development, design, and systems administration.
- Counseled policy and journalism teams on technology policy matters.
- Led overall technical strategy, including crafting new grant proposals.

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 satellite office.
- 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

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### Rochester Institute of Technology

B.S., COMPUTER SCIENCE

- Minor in Public Policy & Minor in Political Science

Rochester, NY

2004 - 2008

## Skills

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**Languages** Python · JavaScript · Go · Rust · C · C++ · HTML · CSS

**Technologies** Django · PostgreSQL · PostGIS · FastAPI · React · Celery · Elasticsearch  
Ansible · Docker · Terraform · nginx · uWSGI · uvicorn · Linux · Git · Vim

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

## Selected Presentations

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### Open Civic Data

GOOGLE/CTCL BALLOT DATA CONVENING

Invited participant in annual summit on civic data standards used by Google, Microsoft, Facebook, etc.

Washington, DC

2017-2019

### Django Built A Nonprofit

DJANGO BIRTHDAY

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

Lawrence, KS

Jul. 2015

### Opening Government Data

HACKONS LA CORRUPTION

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

Montreal, QC

Nov. 2012

### Open Data, Open States

NATIONAL CONFERENCE OF STATE LEGISLATURES SUMMIT

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

Chicago, IL

Aug. 2012

### Opening Government with Python

PYCON US 2011

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

Atlanta, GA

August 2011

### Open States Project

NEW YORK TIMES: OPEN

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

New York, NY

Oct. 2010

## Selected Open Source Projects

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### jellyfish

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

[HTTPS://GITHUB.COM/JAMESTURK/RUST-JELLYFISH](https://github.com/jamesturk/rust-jellyfish)

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

### spatula

[HTTPS://JAMESTURK.GITHUB.IO/SPATULA/](https://jamesturk.github.io/spatula/)

Modern Python library for writing maintainable web scrapers with a page-oriented design.

### scrapelib

[HTTPS://JAMESTURK.GITHUB.IO/SCRAPELIB/](https://jamesturk.github.io/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. (Used on python.org!)