

# Todd Federman

Providence, RI • (617) 866-0737 • [tfederman@outlook.com](mailto:tfederman@outlook.com)  
[feder001.com](http://feder001.com) • [github.com/tfederman](https://github.com/tfederman)

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*Experienced backend engineer looking to make a difference creating quality tools and automation.*

## Skills:

- Primary Technologies: Python, Django, SQL/NoSQL, Linux, AWS
- Areas of interest and specialization: Database design, big data, tools, automation/scraping, backend web and server engineering

## Experience:

1/2022 – 12/2023: Senior Software Engineer, Nara Logics (Boston, MA) (Python, Dagster, Docker, AWS)

- Developed pipelines, microservices, and tests for the Nara Logics AI advisor platform. Evolved our data pipelines from running primarily on data scientists' laptops to running on cloud infrastructure with automation.
- Advised and implemented best practices with the Dagster data orchestration framework. Migrated legacy code to newer Dagster APIs by automating hundreds of required code changes across microservices.
- Migrated the platform code bases from MySQL to PostgreSQL.
- Created a unified testing framework to run various microservice unit and integration test suites in one place and alert for errors and regressions at runtime.
- Trained and assisted more junior team members/interns.

9/2012 – 10/2021: Technical Fellow, Cogo Labs (2012-2017) & Link Ventures (2017-2021) (Cambridge, MA) (Python, Django, AWS, PostgreSQL, Spark)

- Led the evolution of data operations from MySQL-only to a diverse stack with PostgreSQL, Redshift, EMR, MapReduce, Spark, Airflow, and Presto.
- Created a database client web application for access to 100+ databases used by Cogo and its companies. Provided central management of 1m+ queries and 50m+ query executions for 100+ daily users. This became the incubator's primary tool for analysis and sharing BI.
- Created a unique platform for hosting data analysis and data science apps to be run from the browser. Apps could run query or ML code on fixed or temporary cloud infrastructure, as necessary. Apps saved output to a database, Excel, or shareable custom charts and visualizations presented in the browser. This was a Github for executing and seeing the results of code rather than viewing code.
- Developed AWS automation code for EC2, Athena, Mechanical Turk, Route 53, S3, and CloudFront.
- Trained and supported technical analysts in Python/SQL/Linux development.
- Sourced data from many APIs and web sites with a diverse set of scraping techniques, including challenging sources such as LinkedIn.

9/2010 – 9/2012: Lead Developer, Harmonix Music Systems (Cambridge, MA) (Python, Django, PostgreSQL, PHP)

- Contributed features and systems to the Rock Band 3 launch of rockband.com. Led the team that created Rock Band World, the social evolution of the site for Rock Band Blitz.
- Created REST APIs for providing gameplay and song metadata to a partner studio creating Dance Central apps for Harmonix.
- Created reports and aggregation processes for gameplay activity and DLC sales data. Created or enhanced internal tools including data monitoring and engine crash reporting.

1/2010 – 8/2010: MindGames (Python, Django, AWS, Facebook API)

- Advised founders of pre-money social gaming startup. Created their MVP, a Facebook sports trivia game.

6/2008 – 12/2009: Staff Software Engineer, eBay Inc. (Python, Django, PHP)

- Architected and created Python web service to deliver personalized and optimized content for eBay's Flash banner ads. System scaled to 1 bn impressions/day on generic Linux cloud servers.
- Added features to eBay's paid search optimization system that managed \$250 million in annual spend.
- Created a web app front end for eBay analysts to manage algorithms and parameters for eBay's publisher ad server.

4/2006 – 6/2008: Lead Reporting Developer, Adicio, Inc. (PHP, MySQL, PostgreSQL)

- Turned around a reporting code base with severe quality issues, dramatically lowering defects while delivering new functionality. Shortened aggregation processes by 6 hours/day with parallelism and improved schemas.
- Assumed project manager role in addition to architect and developer. Streamlined communication with support and product staff.
- Took ownership of off-hours emergency call response to improve availability for international clients.

2/2003 – 4/2006: Senior Software Developer, Buzztime, Inc. (Java, C, C++, PHP)

- Led product development and implementation of a community site for player discussion, game statistics, and leaderboards.
- Designed and created a Sudoku game for the Bell ExpressVu satellite system.
- Created Buzztime Trivia for the Dish Network and Bell ExpressVu satellite systems.
- Created and maintained web apps for the management of a large trivia question database and scheduling of ads in iTV games.

6/2000 – 10/2002: Web Programmer, Sony Online Entertainment (Java, Perl, Oracle)

- Created and maintained Java and Perl web applications including Sony's casual gaming portal "The Station", and the sites for EverQuest and Star Wars Galaxies.
- Designed and created a CMS to enable producers and editors to publish content to SOE web sites. Replaced a process that required web developers.

## Personal:

- Sample code and commentary available at [feder001.com](http://feder001.com), [github.com/tfederman](https://github.com/tfederman)

## Education:

- 1995 - 1997: Computer Science major, *California State University, San Marcos*
  - Coursework completed: Data Structures, Artificial Intelligence, Software Engineering, Computer Networks, Computer Databases, Assembly Language & Digital Electronics, misc. Math & Physics coursework