

## Application for City Council Vacancy

To qualify to serve as a Council Member, the applicant must be a resident and registered voter in the City of Emeryville. Registered voters in Emeryville must be U.S. citizens, residents of Emeryville, 18 years of age or older, and not currently in prison or on parole for a felony conviction.

Please note: home address and phone number will be redacted from the completed application form and/or resume when it is forwarded to the City Council or provided in response to public records requests in order to protect individual privacy.

### PERSONAL INFORMATION

Full Name:\*

Stephanie Frank Singer

Email Address:\*

[REDACTED]

Home Address:\*

[REDACTED]

City:\*

[REDACTED]

State:\*

[REDACTED]

Zip Code:\*

[REDACTED]

Phone Number:\*

[REDACTED]

Are you a registered voter in the City of Emeryville?\*

Yes

No

Place of Employment:\*

Self-Employed

Occupation:\*

Data Scientist and Elections Expert

Upload Your Résumé:

[REDACTED]

### EDUCATION / EXTRACURRICULAR INTERESTS

High School:

National Cathedral School, Washington DC

College:

Yale University

Trade or Business School(s):

Stanford (CS Ph.D program), New York University (Ph.D. in mathematics)

Extracurricular Interests:

Music, whitewater kayaking

### ADVISORY BODY EXPERIENCE / INFORMATION

Please list all past and current City of Emeryville advisory boards.\*

None -- I moved here in July 2022.

Please list any past and current board, commission or committee memberships outside of Emeryville.\*

Philadelphia (PA) City Commissioner 2012-2016, Rose City Park Neighborhood Association Board, (Portland OR) 2021- 2022; a variety of academic committees at Haverford College (1991-2002); Philadelphia 8th Ward Democratic Executive Committee (2006-2011, including two years as Ward Leader); Philadelphia Democratic City Committee (2008-2011); Open Source Election Technology Institute Advisory Board (2016 - present); VoteShield Advisory Board (2018-present)

Please list all organization memberships and positions held.\*

Election Verification Network  
American Mathematical Society

Please list any relevant work and volunteer experience.\*

Four year term as an elected City Commissioner in Philadelphia (2012-6). Four years service on the Philadelphia 8th Ward Democratic Executive Committee; Two years on the Philadelphia Democratic City Committee; (represented 20K Democratic voters); a decade of professional work supporting leveraging data; work advising county and state election agencies on issues related to data and technology. Development of app and workbook to support local governments to assess and carry out data-related projects (funded by Knight Foundation).

Please provide a short (300 words or less) statement discussing your education, experience, qualifications and preparation for serving on the Emeryville City Council.\*

- I have served in municipal government, and have had contracts with county and state government offices. I have represented a community of 20K people, so I understand outreach and retail politics at a scale close to Emeryville's.
- I know how to read a government budget. I have deep experience with opportunities to use government data well. I understand how staff management in the government context is different from the private sector.
- I believe in the power of local government while maintaining a realistic understanding of its limitations.
- I moved to Emeryville last July, from Portland Oregon. It would be an honor to serve my new hometown.

\* indicates required fields.

Stephanie Frank Singer, Ph.D.  
**Data Scientist & Former Election Administrator**



## Experience

**Research Assistant Professor**, 2019-22, **Senior Fellow** 2022-present, Portland State University

**Senior Fellow, 2022** - present

- Statistical evaluation of interventions to change attitudes toward election administration and oversight
- Election verification research (supported by \$500K in NSF grants)
  - Created [software system](#) for quick consolidation and analysis US election results (10k lines of python code)
  - Published 2020 US Federal General Election results in consistent formats (10K+ downloads)
  - Created public web app for immediate visualization of nationwide county-level 2020 General Election results (with Verified Voting)
  - Managed two graduate students and one software developer.
- Affiliation with the National Center for Academic Excellence in Cybersecurity
- “I know how it feels to lose a stolen election. A real patriot would move on,” published on WashingtonPost.com on January 6, 2021.

**Data Scientist**, Self-Employed, 2016 - present

Consultant specializing in government data and elections cybersecurity resilience

- Advised Oregon Secretary of State on automatic signature verification
- For Verified Voting: advised Oregon legislature and Secretary of State on internet voting and on statutory and regulatory language for tabulation audits; redesigned Verified Voting’s database supporting the nation’s only comprehensive, public, up-to-date tracker of election technology; produced reports and web-based materials; created and implemented “Audit Roadshow” outreach strategy to local election administrators nationwide; assisted with strategic planning
- Supported risk-limiting audit pilots by various county boards of election
- For Free & Fair: Project Lead in agile-style software development of risk-limiting-audit management software for State of Colorado, the open source basis for software in use now in many states
- For Knight Foundation: Created app for government data project management ( )

**Philadelphia City Commissioner**, Board of Elections, 2012 - 2016

Elected as one of three Commissioners responsible for elections in the fifth largest US city across 1,700 voting precincts, a \$10M annual budget, and 90 employees.

- One of three members of the Board of Election which developed program rules & policies, set long- and short-term goals, evaluated programs and developed budgets.
- Introduced the “I Voted Today” and “He Votado Hoy” stickers to one million voters
- Chair of Board of Elections, 2012, including supervision of entire 90-person staff
- Co-Chair of Elections Reform Committee of County Commissioners Association of Pennsylvania, 2013-2015
- Led opposition from inside government to Voter ID law, overturned in 2014.
- Instituted free, easy access to election-related data in electronic form.
- Created *Civics on the Ground* handbook series to empower voters.
- Performed data analysis that led to federal convictions for election malefactors.
- Defeated party-endorsed 36-year incumbent by 9% margin in primary. Raised four times the campaign funds of any other candidate, mostly from small-dollar donors.

**Data Strategist**, Athenian Properties LLC (now AthenianRazak), 2008 - 2011

- Mined foreclosure data from public court dockets, leading to new client acquisition.
- Created geospatial data analysis tools for the School District of Philadelphia, providing comprehensive optimization analysis of supply and demand used for facilities planning.
- Helped create zero-based budget for operations at \$65M Lenfest Hall at Curtis Institute.

**Managing Partner**, Campaign Scientific LLC, 2004 - 2008

Founded data analysis consultancy to serve political campaigns and small businesses.

- Provided strategic election data to successful local, state, and national campaigns.
- Convinced the Pennsylvania Department of State to lower the purchase price of voter files from \$1340 to \$20.
- Convinced the Philadelphia Board of Elections to release detailed official election results in electronic form.
- Provided expert witness testimony for plaintiff in *NAACP v Cortes* in US District Court for the Eastern District of Pennsylvania.
- Co-directed Election Verification Exit Poll in two Pennsylvania congressional districts.

**Assistant/Associate Professor**, Haverford College, 1991 - 2002

Earned tenure in the Math Department. Published several original research papers. Lectured at the Institute for Advanced Study and other venues worldwide. ORCID: 0000-0002-1373-9619

**Election-Related Volunteer Work**

Philadelphia Eighth Ward Democratic Executive Committee: committeeperson, 2006 – 2010;

Ward Leader 2008 – 2010

Election Verification Network: member, 2009 – present

Voter File Manager, Kerry/Edwards campaign in Pennsylvania, 2004

Various election campaigns, 1984 - present

**Education**

Ph.D., Mathematics, *New York University*, 1991.

*Fellowship support earned from National Science Foundation Sloan Foundation IBM and AT&T Bell Labs.*

B.S., Mathematics, *Yale University*, 1985, magna cum laude.  
Additional graduate studies in Computer Science at Stanford University

### **Published Books**

*Linearity, Symmetry and Prediction in the Hydrogen Atom*, Springer Verlag, NY, 2005.  
*Symmetry in Mechanics: A Gentle, Modern Introduction*, Birkhauser, Boston, 2001.

### **Invited Keynote Lectures**

*Detecting Anomalies in the 2020 Election*, Mathematical Association of America Invited Address, Joint Mathematics Meetings, 2021  
*Democracy: Your Path to Power*, Kramer Endowed Lectureship, SUNY Geneseo, 2019

### **Selected Awards**

*NSF RAPID Grant, 2020 (\$200K)*  
*NSF EAGER Grant, 2019 (\$300K)*  
*Knight Foundation Prototype Fund, 2016 (\$60K)*

### **Published Technical Resources**

[electiondata](#): a Python package for consolidating, checking, analyzing, visualizing and exporting election results

[US election results](#): by county, complete, consolidated to standard formats

### **Patent**

US Patent 4,835,732 - Huberman, Bernardo A., Keirstead, William P., Singer, Stephanie. 1989.  
Detection of motion in the presence of noise. Filed March 9, 1987, and issued May 30, 1989.

**Selected Skills:** Python, SQL, ETL, database design, machine learning, git, product SDLC, fluent French, excellent German, some Russian, Italian and Spanish language skills.