



Girish Gupta

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I've got a background in physics, two decades of full-stack programming experience and my investigative and multimedia reporting from Venezuela, the Americas and Middle East has been published by everyone from Reuters to the New Yorker. I'm now CTO of a machine learning startup that aims to identify quality journalism. Throughout my varied career, I have used strong analytical skills to do everything from solve differential equations and architect neural networks to demonstrate multi-billion dollar government corruption and stay safe amid war and violence. I enjoy playing music, photography, keeping fit and, ultimately, satiating my curiosity.

I started coding at eleven, assembling computers, writing software and building database-driven websites from scratch. A popular music site I created in my early teens, in 2000, was listed by MTV as one of the then nascent web's top twenty sources.

I was the first person in my family to go to university and began studying math, physics, chemistry and geology at Cambridge though, not excited by the medieval city's social life, I moved on to Manchester where I focused on physics. My primary interests lie broadly on the theoretical end of the spectrum—spacetime, quantum mechanics and particles—though my Master's project, the abstract to which was published, was more practical: a simulation of the heart to investigate atrial fibrillation.

I then bought a one-way ticket to become a foreign correspondent. As a reporter, I was based primarily in Venezuela for nearly a decade where I produced groundbreaking investigations, covered daily clashes and reported on a humanitarian crisis. From Caracas, I traveled the world—often its most hostile environments: Colombia, Egypt, Iraq, Afghanistan, Cuba, Mexico and many others—and produced text, photos, TV and radio.

As a freelancer, I investigated diamond smuggling from illegal jungle mines in the Amazon, Glencore profiting from a Colombian paramilitary massacre and, separately, the killing of wildcat gold miners there. I worked with some 40 news outlets and stood up to sloppy reporting, slow payments and unpaid work in my own industry—as my career began, not just at its height. As a Senior Correspondent at Reuters covering Venezuela, I demonstrated—always with documents—multi-billion-dollar government corruption, military missile inventories, exaggeration of electoral results and that the country's Chief Justice was arrested on suspicion of murder.

I went beyond traditional media by bringing math and code to journalism, automating data acquisition, simple story-writing and other mind-numbing tasks that pull resources from actual reporting. And, wanting to properly understand the roots of Venezuela's humanitarian crisis, I created web and mobile applications to provide thousands of people with live and historic data on the country's dire economy.

I left Reuters and expanded the *Venezuela Econ* platform into a company, *Data Drum*, which offered automated, clean and elegant global macroeconomic data.

I then spent just over a year in Mumbai where I created a data science unit at a public policy non-profit that advised government on applying computing to everything from urban planning and mapping to data governance and the COVID-19 response.

Now, as Chief Technology Officer at Stanford-conceived, Google-funded startup *Deepnews.ai*, I'm building a machine learning algorithm to identify quality journalism at scale.

Work Experience

Chief Technology Officer, Deepnews

April 2020 –

- Led technology and worked with founders on business strategy at Stanford-conceived startup which used artificial intelligence to identify quality journalism. Funded by Google among others.
- Built machine learning algorithms using natural language processing techniques including word embeddings, convolutional neural networks, Keras, TensorFlow, Python, etc.
- Built a news streaming service to parse, score and store hundreds of thousands of articles every day. An efficient database architecture allowed for complex queries in fractions of a second.
- Built an efficient architecture on GCP (Cloud SQL, App Engine, Compute Engine, Cloud Run).

Head of Data Science, IDFC Institute, Mumbai

May 2019 – May 2020

- Created a solid, broadly-skilled data science unit at a public policy non-profit think/do tank—funded in large part by the Rockefeller, Gates and Ford Foundations.
- Team conducted and published research, built platforms and advised government on urban mobility (using Uber data), open-source mapping, privacy/data governance and COVID-19.
- Liaised with U.S. funders, senior Indian officials and academics.
- Held lectures, discussions and mentored on computing, writing, presenting, management.
- Upgraded and managed IT infrastructure on AWS.

Founder/Chief Executive Officer, Data Drum, Inc.

May 2018 – April 2020

- Created a U.S. C corporation (with *Stripe Atlas*) and platform providing automated, clean and elegant data to explain the world, innovating at the intersection of data science, journalism and finance.
- Held fully automated economic data on half a dozen countries as well as issues such as COVID-19.
- Led a team including developers, economists and regional experts.
- Met with potential customers, investors and partners—and gave speeches—across the world.
- Created AWS- then GCP-hosted platform in HTML, PHP, etc., linked to SQL databases. Managed React Native mobile apps, Node.js API, JavaScript Google Sheets and Microsoft Excel add-ins (highlighted at Microsoft developers' conferences) and PHP, Python data acquisition. Stripe.

Creator, Venezuela Econ (absorbed into *Data Drum, Inc.*), **based in Caracas**

December 2014 – April 2018

- Created the go-to data platform on one of the world's most opaque countries, used by 15,000 people including politicians, investors and journalists for everything from live black market exchange rate fluctuations to details of the brisk money-printing fueling the world's highest inflation.
- Wrote iOS/WatchOS, Android and web apps, as well as an API, providing automated live and historic economic and social data, customizable visualizations, calculators and a flight-tracker.
- Backend and website in PHP, MySQL, HTML, etc.; iOS app in Swift; Android app in Java.

Senior Correspondent, Reuters, **based in Caracas**

June 2015 – May 2018

- Exclusively revealed, with electoral council documents, that the results of a national Venezuelan election were fabricated; secrets about the country's military, including documents showing surface-to-air missile inventories and lists of soldiers arrested for treason and rebellion; that the country's Chief Justice was arrested on suspicion of murder and tried to persuade a judge to release a suspected arms/drug trafficker, with intelligence documents and audio; and high-level, multi-billion dollar corruption at Venezuela's state oil company, with documents and audio.
- Produced text, photos and TV on Venezuela's hyperinflation, social decay, food riots and protests.
- Reported in Iraq and Afghanistan, as well as Washington, D.C., New York and across Latin America.
- Wrote software to automate story-writing, data-gathering and admin.
- Coordinated on-the-ground and digital security in an extremely hostile environment.

Freelance foreign correspondent, Reuters, New Yorker, New York Times, TIME, BBC..., **based in Caracas**

October 2010 – May 2015

- Produced text, photos, video and radio in Venezuela, as well as Brazil, Colombia, Cuba, Ecuador, Egypt, Guyana, Jordan, Lebanon, Peru, and Mexico, for more than 40 major news outlets.
- Covered the cancer, election and death of Venezuela's Hugo Chávez, the messy transition to Nicolás Maduro's rule and the crisis that followed, including daily violent unrest.
- Investigated diamond smuggling from illegal jungle mines in the Amazon, Glencore profiting from a Colombian paramilitary massacre and killing of wildcat gold miners linked to a multinational

there.

- Conducted on-the-ground investigations for *Control Risks*, *K2 Intelligence* and *Ergo*.
- Built a sustainable business with \$10,000 monthly revenue in a notoriously difficult industry.
- Fined many clients for late payment and successfully took to court those who refused to pay fines.

Officer Cadet, Manchester and Salford Universities Officers' Training Corps (British Army)

September 2007 – July 2008

- Training in first aid, weapon handling, drill, leadership, fieldcraft and military tactics.

Creator, *Music Goes On*, Ltd., England

May 2000 – November 2001

- Built (PHP, MySQL, HTML, etc.) a music website listed by *MTV* as one of the web's top 20 sources.
- Assembled computers, wrote a BPM counter, VAT calculator, word processor, etc., in Delphi, C++.

Formal Education

Physics (MPhys) at University of Manchester, England

September 2006 – June 2010

- Abstract to Master's project—a computer simulation (in C) of the heart exploring atrial fibrillation—published in the *Proceedings of The Physiological Society*.
- Bachelor's project on negative index of refraction; first year essay on the physics of music.
- News editor at the *Mancunion* student newspaper. Hosted a radio show.
- Teaching placement, including planning and giving lessons.
- Interned at news outlets—*Reuters*, *Guardian* and *Times of London*—and worked in bars, clubs.

Natural Sciences: Math, Physics, Chemistry and Geology at King's College, Cambridge University, England

September 2005 – June 2006

- Social Secretary at *Cambridge University Canoe Club*.

Math, Physics, Chemistry and Biology (A-Levels) at Burnham Grammar School, England

September 2003 – June 2005

- Physics projects included a flash-rate monitor and a report on the Special Theory of Relativity.
- Worked at a supermarket, bookshop and various bar, waiting jobs.

Other Stuff

Courses: Deep Learning Specialization 2020 *deeplearning.ai/Coursera*
 Hostile Environment Training 2015 *Hawthorne/Reuters*
 Surviving Hostile Regions 2012 *AKE/Rory Peck*

Side-Projects: According to Documents 2020 Highlight document-based investigative reporting.
 Readwise2Roam 2020 Convert *Readwise* book and article highlights to *Roam* notes.
 GlobalOTP 2019 Forward text messages to email. PHP, FireStore, Twilio, Stripe.

Code: C, C++, Java, Swift, PHP, Python, R, MATLAB, SQL, HTML, JavaScript.

Server: AWS (Lightsail, EC2, RDS, SES, Route 53).
 GCP (Compute Engine, App Engine, Cloud Run, Cloud SQL, FireStore).

Languages: English, Spanish, Hindi/Urdu, basic French and Arabic.

Interests: Science, math and their history. Health and fitness. Photography. Travel. Music.

Online: Website, Twitter, LinkedIn, GitHub, Angellist.