



Every year on record: annual global surface temperature anomaly, °C against the 1951–1980 mean, NASA GISTEMP v4. The bracket marks the years I have been building things for the web. 2026 is provisional, eight months in.

JORDAN HARDING

Chief Technology Officer at Habitat Seven, 2014–2026

Thirty-two years building for the web. Twelve of them as a CTO, most of them spent on the data infrastructure that space agencies, development banks and governments use to see the climate coming.

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32 years building for the web, since 1994	12 years as chief technology officer	3 B+ visitors served across my own product network	10 TB+ climate data distributed through ClimateData.ca	<15 peak size of the engineering team
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Summary
1994–2026

I have been building things for the web since 1994. For the last twelve of those years I was Chief Technology Officer of Habitat Seven, where a senior team that never grew past fifteen people built the public climate, water and risk platforms used by NASA, the World Bank, the IPCC and the Government of Canada.

Alongside it I spent four years on SpatiaFi, a spatial-finance platform that puts a dollar figure on the physical risk to every asset in a portfolio. Climate Engine, the company behind it, was acquired by Earth Finance in April 2025, and I stayed through the integration as Head of Engineering.

The work is unusual in that it has to satisfy two audiences at once. Climate scientists will not accept an approximation, and will find it if you make one. Members of the public will leave if the map takes four seconds to load. Almost every architectural decision in this career sits on that line.

I built the engineering practice, the technical architecture and the client relationships that let a very small team ship at that standard, repeatedly, for a decade. I am looking for the next organisation where hard data problems decide whether the mission works.

Roles
1994–present

Dec 2025 –
present

Owner, Capital Coders Inc
Ottawa, Canada

My software company, building and operating SaaS products. The current product line is below.

Jun 2014 –
2026 · 12 yrs

Chief Technology Officer, Habitat Seven
Ottawa, Canada · full time

Owned technical strategy, architecture and engineering practice for a studio building public climate, water and risk platforms for national and international institutions. Led the technical relationship with NASA, the World Bank, the IPCC, NOAA and Environment and Climate Change Canada.

Apr – Dec 2025

Head of Engineering, Earth Finance, Inc.
part time

Led engineering for SpatiaFi through its acquisition and integration into Earth Finance's platform.

Jan 2021 –
Apr 2025 · 4 yrs

Platform Engineer, Climate Engine
Ottawa, Canada · part time

Built the platform behind SpatiaFi, the spatial-finance product Climate Engine was acquired for in April 2025.

Jan 1994 –
present · 32 yrs

Owner, Transit Network

Ottawa, Canada

My own web application engineering firm, running continuously since 1994. Custom commercial web applications taken from idea to production, on bare metal and on Google Cloud. The network runs more than 100 developed properties with another 300 held, and has served over three billion unique visitors to date.

Climate Engine and Earth Finance ran part time alongside the Habitat Seven role. Transit Network has run throughout.

What I built
selected
platforms

Environment and
Climate Change
Canada

ClimateData.ca

climatedata.ca

Canada's official source for climate information. Historical station records, downscaled model projections and adaptation guidance for every populated point in the country, delivered as interactive maps and charts that a municipal engineer can actually use.

What I owned. I engineered the mapping and charting engine behind the portal and the pipeline that manages and distributes more than 10 TB of gridded climate data. It now functions as the federal government's primary climate data resource and the reference platform for national adaptation planning, built with ECCC alongside the Pacific Climate Impacts Consortium, Ouranos, the Prairie Climate Centre, CLIMAtlantic and ClimateWest.

Government of
Canada · Natural
Resources Canada

Canada in a Changing Climate

changingclimate.ca

Canada's national climate assessment: the authoritative account of how the country's climate is changing and what it means, and the document federal and provincial adaptation policy is written against.

What I owned. Habitat Seven built the platform carrying the entire assessment, and I owned it technically across six report releases between 2019 and 2024: Canada's Changing Climate Report, the Regional Perspectives and National Issues reports, Health of Canadians in a Changing Climate, the Indigenous Resilience Report and the 2023 Synthesis Report. Every one shipped on a fixed date to national press, in both official languages, to federal accessibility standards.

NASA · Desert
Research
Institute · USGS

OpenET and OpenET FARMS

etdata.org

Satellite-derived evapotranspiration, the water crops and vegetation actually consume, at 30-metre field resolution, daily, across the western United States. Before OpenET a farmer's water use was an estimate. Now it is a measurement.

What I owned. I have been on OpenET since day one: the bare-metal servers hosting the geodatabase, and the data-model redesign that took it from hundreds of gigabytes to seven. The explore.etdata.org platform, the staging environment and its automated demo management, every revision of the authentication platform now carrying more than 12,000 users, OpenET FARMS, dozens of internal tools, and much of the Google Cloud infrastructure underneath. The data underpins groundwater sustainability plans, water trading programs and conservation incentives across multiple western states.

Climate Engine →
Earth Finance

SpatiaFi

earthfinance.com/spatiafi

Spatial finance: one portfolio-wide financial view of the physical, policy and market forces acting on every asset a company owns. It turns exposure into dollars, which is the only unit a board reliably acts on.

What I owned. I built the platform behind it: thousands of native geospatial data layers and agentic workflows on Google Cloud, joining environmental data to asset-level financial modelling. Climate Engine was acquired by Earth Finance in April 2025 on the strength of this product, and I led engineering through the integration.

The World Bank

Climate Change Knowledge Portal

climateknowledgeportal.worldbank.org

The World Bank's country-level climate intelligence platform, used by finance ministries and development lenders to assess physical climate risk before capital is committed.

What I owned. I designed and implemented the interactive mapping and graphics layer, integrating more than fifty climate datasets into one comparable interface spanning every country the Bank lends to, so that a projection for Malawi and a projection for Vietnam can be read side by side without a caveat.

United Nations · IPCC	The IPCC digital platform ipcc.ch The public face of the world's climate consensus, and the distribution point for the assessment reports that governments negotiate against. What I owned. I built the digital platform and data-visualisation strategy carrying the IPCC's scientific assessments: the figures, maps and underlying data from the most scrutinised scientific documents on earth, prepared on the assumption that every graphic will be reproduced, contested and fact-checked worldwide within hours of release.
NOAA · White House Office of Science and Technology Policy	U.S. National Climate Assessment nca2014.globalchange.gov The congressionally mandated assessment of how climate change is affecting the United States, published by the White House. What I owned. Lead developer and multimedia content designer for the web edition: the interactive maps and data visualisations that carried the assessment's findings to a national press corps and public on the morning it was released, under a fixed and immovable publication date.
Also shipped same period	Risky Business The Risky Business Project (Bloomberg, Paulson, Steyer). A platform putting a dollar figure on the climate risk facing the American economy, region by region and sector by sector. UL Safety Index Underwriters Laboratories. Geospatial analysis of safety outcomes across countries, turning a sprawl of public-health and injury data into a single comparable index. Risk Profiler Habitat Seven. Geospatial and big-data analysis for climate risk assessment at asset and portfolio level. The New Climate Economy World Resources Institute. An integrated publishing and social platform for the global commission's research on growth and climate. BBC Media Action British Broadcasting Corporation. Qualitative data visualisation of environmental and development research for a broadcast audience. GEM geoscience data Natural Resources Canada. Public delivery of geoscience and mapping data from the Geo-mapping for Energy and Minerals program.
Capital Coders the product line	The SaaS products I build and operate. Each one started as a question about what the stack could actually do. TerraPrinter Turn anywhere on Earth into a detailed, 3D-printable model in seconds. I self-host the whole data stack (OpenStreetMap, elevation and global bathymetry) cached worldwide as vector and raster tiles, then resolved against live data at generation time. Contour lines, slope and aspect shading, GPX overlays, full-colour 3MF export and AR preview. Users generated more than 20,000 terrain models in its first six weeks. TerraPrinter Drive/Fly 1.13 billion OpenStreetMap features in a local database, rendered in real time so you can drive or fly anywhere on Earth. Elevation tiles, satellite imagery and OSM vector data stream in as you move, with Rapier physics under the wheels and live telemetry: speed, altitude, gradient and lateral G. Buildings, roads, parks and waterways build themselves around you as you go. FormSnap A form builder that is thirty years of building web forms distilled into one product. Generate a whole form from a prompt, or from a PDF, a screenshot or a sketch; real row-and-column layout control, full reporting and export, complete API access. RampGenerator Colour ramp tooling for Leaflet and MapLibre, with colourblind modes built into the API rather than bolted on, saved projects and MapLibre templates.
How I run engineering	Small senior teams, long-lived systems Habitat Seven never grew past fifteen people, by choice. Platforms we shipped a decade ago are still in production and still being extended. I optimise for systems a small team can still reason about in year ten, which rules out a great deal of fashionable architecture.

Engineering that survives scientific review

Our reviewers were climate scientists and federal statisticians. A chart that smooths a curve for aesthetic reasons is a defect, not a design choice. I built a review practice where the science side and the engineering side sign off on the same artifact, because the alternative is finding out in a press cycle.

Public-sector delivery, without the public-sector timeline

Multi-year procurement, accessibility conformance, bilingual delivery, security review and open-data licensing are constraints I have shipped inside of for a decade, not ones I have read about. They are predictable, and a team that plans for them moves faster than one that treats them as surprises.

The CTO is in the room with the client

I led the technical relationship on most of these engagements directly: scoping, architecture, and the honest conversation about what the budget actually buys. That trust is why the work compounded into decade-long mandates with NASA, the World Bank and ECCC instead of a portfolio of one-off projects.

Still in the codebase

Twelve years in as a CTO, I was still writing code, and I build and run the product line above myself. I do not believe you can architect systems at this resolution from a distance, and I have never wanted to.

What I work in	Geospatial	PostGIS, MapLibre, OpenLayers, Leaflet, Mapbox, ESRI/ArcGIS, GDAL, OpenStreetMap, vector and raster tile pipelines, DEM and bathymetry, cartographic design			
	Climate & EO data	Google Earth Engine, satellite remote sensing, NetCDF and gridded model output, statistically downscaled projections, station records			
	Data platform	PostgreSQL, BigQuery, large-scale ETL, multi-terabyte distribution, public APIs			
	Visualisation	D3, WebGL, WebGPU, Three.js, Chart.js, Canvas, real-time 3D, scientific charting to publication standard			
	Application	JavaScript, Python, PHP, SQL, HTML, CSS			
	Infrastructure	Bare-metal hosting, Google Cloud, self-hosted global tile serving, caching and CDN, public APIs			
	Practice	Technical architecture, hiring and mentorship, scoping and technical sales, WCAG accessibility, open-data licensing, government procurement			

Who it was for three decades of clients	NASA	NOAA	The World Bank	United Nations / IPCC
	White House OSTP	Environment and Climate Change Canada	Natural Resources Canada	Health Canada
	U.S. Geological Survey	Desert Research Institute	British Broadcasting Corporation	Bloomberg
	World Resources Institute	Underwriters Laboratories	Harvard University	Cornell University
	Ouranos	Pacific Climate Impacts Consortium	SC Johnson	Fidelity Investments
	Dun & Bradstreet	Government of Saudi Arabia		

Long enough in this to watch the stripe chart change colour. I would like to spend the next stretch on something equally worth measuring.

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Temperature record: NASA Goddard Institute for Space Studies, GISTEMP v4.