Tristan Guest

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I am a motivated software developer based in Nova Scotia, Canada. I like working thoughtfully with full-stack tools to produce straightforward user experiences and a fast development cycle. My core expertise is in TypeScript, React, Node.js, and Python. From my background in the physical sciences, I bring 10+ years of experience working with data and a developed sense of academic rigour.

EXPERIENCE

Software Engineer   **BiggerPicture**   **2022 - present**
San Francisco, CA (remote)

- Contracted by a YC-backed startup (S22) for a from-scratch rewrite of their SaaS platform using full-stack TypeScript with tRPC
- Full-stack role focused on React UI and a tRPC-based API used to handle scheduling for 1000s of monthly truckloads in the U.S.
- Built out API and webhook infrastructure for interfacing with business-critical external software systems

Skills: TypeScript, React.js, Node.js, Next.js, tRPC, API design, Prisma/Planetscale/MySQL, LLMs

Senior Software Consultant   **Luna Sea Solutions**   **2021 - present**
Lunenburg, NS (hybrid)

- Lead development of a full-stack SaaS product at an ocean tech startup (see lunaocean.app)
- Designed and built a resilient back end leveraging AWS, MongoDB, Node.js, and Python to process and serve map tiles and model data amounting to 100s of GB of data daily
- Introduced DevOps best practices to the development lifecycle, emphasizing effective CI pipelines and fast identification of failure modes through automated deployments, tests, and error logging
- Built a GPU-powered particle animation engine for visualizing ocean currents, wind, and waves using WebGL

Skills: TypeScript, React.js, Next.js, Node.js, Python, MongoDB, AWS, MapboxGL JS, WebGL

Software Developer   **Luna Sea Solutions**   **2020 - 2021**
Lunenburg, NS (hybrid)

- Managed development of Python-based software packages and products as an early hire and technical lead
- Facilitated architecture planning for a greenfield data access platform based in Next.js
- Established a company source control workflow using Git and GitHub, increasing the company's development speed and capacity
- Authored an industry-leading report advising on the use of software tools in the ocean energy sector

Skills: Python, JavaScript, React.js, Git, GitHub

Doctoral Researcher   **Ocean Acoustics Laboratory**   **2013 - 2020**
Dalhousie University, Halifax, NS

- Specialized in signal and image processing, computer vision
- Built customized software infrastructure in Python for managing, analyzing, and visualizing physical data, leading to technical and scientific advances in coastal ocean monitoring
- Leveraged Git and GitHub to build robust and reproducible workflows handling complex and disparate data
- Communicated technical content to varied audiences through popular/academic articles, local/international conference talks

Skills: Python, C, Git, GitHub, Linux network administration, technical writing

EDUCATION

PhD, Physical Oceanography   **2013 - 2020**
Dalhousie University   Halifax, NS

BSc, Mathematics   **2008 - 2013**
Dalhousie University   Halifax, NS