

Christian Stolte



VISUALIZATION DESIGNER + UX/UI + TOOL BUILDER

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SUMMARY

Experienced UI/UX designer and data visualization expert with a proven track record in designing tools for drug development, genomics, and clinical data analysis. Skilled in leading cross-functional teams and delivering browser-based applications that enhance scientific research. Adept at communicating complex data through visual storytelling and collaborating with top-tier research institutions. Excellent visual, analytical and conceptual problem solving abilities.

WORK EXPERIENCE

Lead Visualization Engineer

Cellarity (Somerville, MA)

2021 - 2025

- Led workshops to gather user needs and translate them into technical requirements for data exploration tools.
- Designed and implemented user interfaces connected to machine learning models for data analysis.
- Designed and prototyped user interfaces for browser-based applications using React and Python, ensuring user-friendly experiences and thorough documentation.
- Applied knowledge of front-end development (HTML, CSS, JavaScript) to facilitate collaboration with engineers.
- Collaborated with science teams to select database systems for storing and querying transcriptional data.
- Produced visual content for investor presentations and scientific communication.

Consultant

stoltedesign.com (Islesboro, ME and Putnam, CT)

2018–Present

Designed and built software tools and health tech applications for clinical and research use:

- *GenomeDiver*, helping geneticists, clinicians, and labs improve communication and diagnostic rates;
- *Aquaria*, enabling average biologists to incorporate protein structure analysis into their workflow;
- *GenoCat.tools*, cataloging hundreds of genomic visualization tools.

Created visualizations and illustrations for scientific publications in *Cell*, *Nature*, *Nature Methods*, and *Translational Science*. Clients include Icahn School of Medicine at Mount Sinai, Gehlenborg lab at Harvard Medical School, *Science* Magazine, and Garvan Institute for Medical Research.

Data Visualization Designer

New York Genome Center (New York, NY)

2015–2019

Designed *MetroNome*:

- a visual exploration environment for genomic and clinical data.
- Interactive data visualizations reveal connections between genomic data and phenotypic traits.
- Used by ALS researchers from over 100 labs across four continents and 16 countries, this platform allowed researchers to quickly form and explore novel hypotheses.

Collaborating with labs at NYGC, I contributed data visualizations and information graphics to publications.

Senior Bioinformatics Specialist, Visualization

CSIRO (Sydney, Australia)

2012–2015

Worked with the team in the Biovis lab on the design and development of a range of bioinformatics applications:

- Improved existing research software tools;
- Created novel solutions to address new scientific problems;
- analyzed and formulated user needs;
- provided technical leadership and vision.

Art-directed biomedical animations (vizbi.org/vizbiplus) and trained animators.

Web Designer and Developer

Broad Institute of Harvard and MIT Cambridge, MA

2007–2012

- Designed and implemented responsive bioinformatics data analysis and visualization tools.
- Designed and coded the web sites hosting sequence and annotation data for microbial genomes
- Lead designer for expansion of the TB Database website (tbdb.org) to include metabolic maps and gene expression data, resulting in nearly 100% adoption by the global TB research community.

PREVIOUS EXPERIENCE

Malcolm Gear Designers (Providence, RI) – SENIOR DESIGNER, 2000-2004

Artificial Life (Boston, MA) – ART DIRECTOR & WEBMASTER, 1998–2000

Simon & Schuster Custom Publishing (Needham, MA) – ART DIRECTOR, 1996–1998

SELECTED TALKS

San Francisco, 2020	Bio-IT-World West	Clinical Software & Applications
Boston, 2019	Bio-IT-World	Creating a Dialog about Genetics with <i>GenomeDiver</i>
New York, 2018	SciViz NYC	<i>MetroNome</i> : Designing for Exploration
Sydney, 2017	VIZBI	Development of Genome Visualizations
Baltimore, 2016	BioVis	Unlocking Protein Structure Analysis with <i>Aquaria</i>

SELECTED AWARDS

Winner, Design Contest at Biovis 2016

First prize, 2015 NSW iAward for Research and Development for *Aquaria*

Finalist, 2015 NSW Emerging Creative Talent Award for VIZBIplus

Two finalist videos, The VIZZIES 2014, Science and Engineering Visualization Challenge (NSF)

“The Hungry Microbiome” and “Cancer is Not One Disease”

PUBLICATIONS

I contributed to 33 articles in *Cell*, *Nature*, *Science*, and other leading journals. For a full list of publications please visit my Google Scholar page (<https://scholar.google.com/citations?user=nuyRmLkAAAAJ>)

EDUCATION

Mass. Institute of Technology, Cambridge, MA: Audited courses in Biology and Computational Biology

Rhode Island School of Design, Providence, RI: Courses in Computer Animation and Marketing

SKILLS

- **Data Visualization Tools Development**
- **Machine Learning Integration**
- **React and Python Frameworks**
- **Scientific Communication**
- **Bioinformatics Application Design**
- **Software development:** visualization (D3, three.js, WebGL), front-end development (HTML, CSS, JavaScript, TypeScript, React, Vue), back-end development (Python, Java, node); Git, Atlassian suite.
- **Collaboration:** Organized public science communication events for three years at VividSydney festival; Co-organized an international conference series, VIZBI (vizbi.org), since 2012. Peer-reviewed scientific articles. Extensive experience in scrum/agile teamwork.
- **Teaching:** D3.js workshops; Masterclasses on data visualization design; Data visualization for PhD students in Genomics (University of Galway, Ireland, 2019)
- **Design:** 20+ years of experience in Photoshop, Illustrator, XD, InDesign, Sketch, Figma, Keynote, MS Office suite; user-centered design; user experience design.
- **Languages:** Fluent in English and German (native), some French