

WORK EXPERIENCE

stolte.design Islesboro, ME

2019–2020 CONSULTANT

I design software tools, web resources, and visualizations for clinical use and for life science research. Examples include *GenomeDiver*, helping geneticists, clinicians, and labs improve diagnoses; or *Aquaria*, enabling average biologists to incorporate protein structure analysis into their workflow. Clients include Icahn School of Medicine at Mount Sinai, *Science Magazine*, and Garvan Institute for Medical Research.

New York Genome Center New York, NY

2015–2019 DATA VISUALIZATION DESIGNER

I 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 the Center, I contributed data visualizations and information graphics to many publications.

CSIRO Sydney, Australia

2012–2015 SENIOR BIOINFORMATICS SPECIALIST, VISUALIZATION

Worked with the team in the Biovis lab on the design and development of a range of user-focused bioinformatics applications. Improved existing research software tools, and 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.

Broad Institute of Harvard and MIT Cambridge, MA

2007–2012 WEB DESIGNER + DEVELOPER

Designed and implemented responsive bioinformatics data analysis and visualization tools. Designed and coded the web sites hosting sequence and annotation data for microbial genomes at the Broad Institute. Lead designer for expansion of the *TB Database* website (tbdb.org) to include metabolic maps and gene expression data.

PREVIOUS EXPERIENCE 1996–2006

Malcolm Grear Designers Providence, RI – SENIOR DESIGNER

Artificial Life Boston, MA – ART DIRECTOR & WEBMASTER

Simon & Schuster Custom Publishing Needham, MA – ART DIRECTOR

SELECTED TALKS

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

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 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

Audited courses in Biology and Computational Biology

Mass. Institute of Technology, Cambridge, MA

Courses in Computer Animation and Marketing

Rhode Island School of Design, Providence, RI

SKILLS

Collaboration

Organized public science communication events for three years at VividSydney festival; helped organize a visualization-oriented international conference series, VIZBI (vizbi.org), since 2012. Peer-reviewed scientific articles.

Teaching

D3.js workshops; Masterclass on data visualization design; Data visualization for genomics (University of Galway, Ireland, 2019)

Design

20+ years of experience in Photoshop, Illustrator, QuarkXpress; XD, InDesign, Sketch, Keynote, MS Office suite

Software development

HTML5, CSS, JavaScript (D3, node, React, jQuery), Java, PHP, Python; Git, Atlassian suite

Languages

Fluent in English, German (native), and French