

Nicholas Ornstein

CONTACT INFORMATION	54 Fairview Avenue Watertown, MA 02472	nicholas.ornstein@fulbrightmail.org [under construction] www.nicholasornstein.com
	The University of Chicago, Chicago, IL B.Sc. in Neuroscience with Honors <i>cum laude</i> ; GPA: 3.83/4.00 Minor in Media Arts and Design	June 2021
HONORS AND AWARDS	Fulbright Research Scholarship (13%) Neuroscience Honors Summer Research Award Quantitative Biology Summer Fellowship College Summer Institute Fellowship in the Arts and Humanities National Merit Scholar (0.25%)	2021 2020 2019 2019 2017
RESEARCH EXPERIENCE	Human Centered Ubiquitous Media Group, LMU Munich, Germany <i>Fulbright Scholar, Research Associate</i>	October 2021 - September 2022
	<ul style="list-style-type: none">• Advised by Professor Albrecht Schmidt and Professor Lewis Chuang• Engineered electrical muscle stimulation systems that interface with and actuate the user's hand and arm• Investigated the potential of electrical muscle stimulation for motor learning in the context of musical rhythms via a user study• Developed control software, text interface, and conducted analyses in Python	
	Bensmaia Lab, The University of Chicago <i>Research Associate</i>	October 2018 - August 2021
	<ul style="list-style-type: none">• Designed and fabricated physical models of texture perception using silicone gels• Conducted data analyses by developing algorithms to characterize texture profile data• Accepted to the Neuroscience Honors Cohort; wrote thesis 'Investigating the neuro-mechanics of texture perception using a gel elastomer'• Presented findings at the Society for Neuroscience conference in 2022	
	College Summer Institute in the Arts, Humanities, and Social Sciences, UChicago <i>Research Associate</i>	June 2019 - August 2019
	<ul style="list-style-type: none">• Studied the philosophy of AI to address the requirements for computational creativity• Authored final paper arguing for expertise as a requirement for artistry, presenting at final symposium, published in undergraduate research proceedings	
	Kaplan Lab, Biomedical Engineering Dept, Tufts University, Medford, MA <i>InSPIRE Intern and Research Assistant</i>	June 2016 - August 2016
	<ul style="list-style-type: none">• Advised by Professor David Kaplan, I worked on a library of silk-elastin-like-proteins and related biomaterials.	
CONFERENCE PRESENTATIONS & PUBLICATIONS (ONLY LIGHTLY PEER-REVIEWED)	Ornstein, N.B. (in press, 2024) Immersive Virtual Reality and the Child's Well-being. <i>Proceedings of the Symposium on Children and Adolescents in Crisis at the University of Cologne, Cologne, Germany</i> [Paper], [Slides]	

Ornstein, N.B., Villa, S., Lopes, P., Chuang, L.L. Electrical muscle stimulation to improve temporal precision during rhythm learning. Presented at the *Intelligent Musical Interfaces Workshop, ACM CHI 2022*, New Orleans, LA
[Workshop Paper], [Slides]

Ornstein, N.B., Greenspon C.M., Bensmaia, S.J. Using a gel elastomer to characterize the neuromechanics of texture perception. Presented at the *Society for Neuroscience, 2022* (virtual)
[Undergrad Thesis], [Slides], [Video], [Code]

Ornstein, N.B. New Levels or Old Strategies? Contextualizing Politicized Science Under President Trump. *Science in Society Review*, Spring 2020 (College Journal) (note: written pre-pandemic)
[Journal Issue]

Ornstein, N.B. Expertise without experience: can computers be artists? *The University of Chicago Undergraduate Research Symposium 2020 Online Proceedings*
[Proceedings Abstract], [Paper]

PANEL/SPEAKING EXPERIENCE Speaker, Wellesley College Human-Computer Interaction Lab, (March, 2022) – Electrical muscle stimulation to improve temporal precision during rhythm learning

Panelist, College Center for Research and Fellowships, UChicago (January 2022) – An Introduction to the Fulbright Scholarship

Speaker, The NEURO Club, UChicago (March 2021) – An Introduction to Techniques in Computational Neuroscience

Panelist, College Center for Research and Fellowships, UChicago (March 2021) – Preparing a Fulbright Scholarship Application

WORK EXPERIENCE **Eastern Research Group**, Remote

Analyst Set to start in January 2025

- Will serve as technical consultant to projects for federal agencies such as the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA)
- Assignments involve building maps, dashboards, and user interfaces for environmental monitoring software

At Scale (Dem political consulting/strategy firm), Remote

Election Data Organizing Associate October 2024 – November 2024

- Pre-planned efficient routes for canvassers for the Tester campaign for Senator, MT
- Analyzed field metrics for quality control, turf effectiveness, delivered reports to analytics team
- Automated field report generation processes with Python and Google Apps scripts, increasing pipeline efficiency by 25%

Amazon Advertising, Munich, Germany

Research Data Analyst, Analytics & Insights December 2022 - July 2024

- Developed, maintained, and automated ETL pipelines using SQL (Redshift)
- Handled insight requests, scoped projects and analyzed advertising data in Python to deliver insights
- Launched new report modules for telecommunications clients influencing >€2.8M revenue, delivered to sales stakeholders across Europe; modules then scaled cross-vertical
- Collaborated on the design and implementation of a predictive audience system, using gradient boosting techniques to predict whether a shopper was likely to purchase from a given category

Bluebonnet Data (part-time, volunteer), Remote

Data and Technology Fellow August 2020 – November 2020, August 2022 – November 2022

- Managed technology on campaigns for Wisconsin State Assembly and Texas House
- Used GeoPandas in Python to identify and visualize census tracts containing the most swing voters, campaign used these maps to direct canvassing resources to reach the deciding population

Science in Society Review (Campus Journal, part-time), Chicago, IL

Managing Editor, Associate Editor, Writer October 2019 - June 2021

- Wrote article on the politicization of science; line-edited and fact-checked articles
- Managed Associate editors, ensuring quality and managing deadlines

UChicago TechTeam (student org), Chicago, IL

Chair of Internal Projects, Deputy Chair of Client Relations October 2018 – June 2021

- Conducted technical consulting projects for non-profits on the South Side of Chicago
- Oversaw client comms, project leader and member recruitment, organized novel client database

MealFlour (social enterprise), Quetzaltenango, Guatemala

Documentary Intern June 2018 – August 2018

- Authored research report on optimizing mealworm farming process
- Filmed and produced original promotion video and documentary

SERVICE
(REVIEWING)

Human-Agent Interaction, 2023 (HAI)
Human Factors in Computing Systems, 2023 (CHI) (Student Game Competition)

TEACHING
EXPERIENCE

UChicago Biological Sciences Division, Chicago, IL USA 2020-2021

- Served as a TA for Cellular Neuroscience and Systems Neuroscience introductory courses
- Held office hours, taught neuroscience concepts, graded hundreds of student papers and exams

SKILLS

Coding: Highly proficient in Python (numpy, sklearn, matplotlib, PyTorch, pandas), SQL (Redshift), Microsoft Office and Google Suite, proficient in C, C++, MATLAB, web-scraping (API calls, BeautifulSoup), LaTeX/markup, and git (version control); experience with command line tools, AWS Cloud: Sagemaker, S3, Athena, JavaScript, HTML, CSS, Hugo

Languages: Native in English, Proficient in Spanish, Intermediate German