Satchel Grant

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Education

Grant High School *(Portland, OR)* - High School Diploma *(May 2010)*
Whitman College *(Walla Walla, WA)* - BA Chemistry *(May 2014)*
Oregon State University *(Corvallis, OR)* - Assorted CS Classes *(Jan - Jun 2016)*
Oregon Health and Sciences University *(Portland, OR)* - Assorted AI Classes *(Sept - Dec 2018)*
Stanford University *(Stanford, CA)* - Ph.D. Candidate Cog Psy, CS Minor *(Sept 2020 - Present)*

Publications

Satchel Grant, Noah D. Goodman, James L. McClelland. *(Under Review).* "Emergent Symbol-Like Number Variables in Artificial Neural Networks." Access Link. 2024.

Satchel Grant, Zhengxuan Wu, James L. McClelland, Noah D. Goodman. *(In press).* "Symbolic Variables in Distributed Networks that Count." *CogSci*. 2024.

Niru Maheswaranathan*, Lane T. McIntosh*, Hidenori Tanaka*, Satchel Grant*, David B. Kastner, Josh B. Melander, Aran Nayebi, Luke Brezovec, Julia Wang, Surya Ganguli, Stephen A. Baccus. "The Dynamic Neural Code of the Retina for Natural Scenes." *Neuron. 2023.*

Xuehao Ding, Dongsoo Lee, Satchel Grant, Heike Stein, Lane McIntosh, Niru Maheswaranathan, Stephen Baccus. "A mechanistically interpretable model of the retinal neural code for natural scenes with multiscale adaptive dynamics," *2021 55th Asilomar Conference on Signals, Systems, and Computers*, 2021, pp. 287-291, doi: 10.1109/IEEECONF53345.2021.9723187.

* co-first authorship

Not Quite Publications (*see my website for commentary*)

Satchel Grant, Chi-Ning Chou, Thomas Edward Yerxa, SueYeon Chung. "Direct Manifold Capacity Optimization", *Hosted on Github.* 2024. Access Link

Satchel Grant, Jay McClelland. "Bidirectional Influences of Grounded Quantification and Language in Acquiring Numerical Cognitive Abilities", *Hosted on Github.* 2023. Access Link

Satchel Grant, Sahil Kulkarni. "Leveraging Pre-Trained Large Language Models for Context Compression." *Stanford CS 324.* 2023. Access Link

Satchel Grant, Matheus Dias, Sahil Kulkarni. "Spontaneous Decomposition from Grouped Network Pathways." *Stanford CS 231n.* 2022. Access Link

Satchel Grant, Sahil Kulkarni, Noah Goodman. "Improving Chain of Thought with Chain of Shortcuts." *Hosted on Github.* 2023. Access Link

Satchel Grant, Jay McClelland. "Recurrent Models of Number as a Cognitive Technology." *Stanford Psychology FYP.* 2022. Access Link

Satchel Grant. "Language Effects on Exact Equivalence Tasks." *Stanford CS 229.* 2023. Access Link

Research Grants

2023 HAI Google Cloud Credits Grant (Stanford, CA)

Professional/Research Experience

NeuroAI & Geometric Data Analysis Lab (Flatiron Institute)
Summer Intern *(June 2024 - Aug 2024)*

Analytical Connectionism Summer School 2023 (Gatsby Computational Neuroscience Unit, University College London)
Teaching Assistant *(Aug 2023)*

Stanford PDP Lab (Stanford University)
Ph.D. Candidate *(July 2020 - Present)*

Stanford Baccus Lab (Stanford University)
Research Professional *(Oct 2018 - July 2020)*

Methods in Computational Neuroscience (Woods Hole, MA)
Course Coordinator/Teaching Assistant *(July 2019 - August 2019)*

Independent Software Developer
Software Developer *(Aug 2017 - Jan 2019)*
- Completed EBLI Reading Adventures #1 EBLI Island for Android.
- Completed EBLI Reading Adventures #2 EBLI Space for Android.
- Completed EBLI Sight Words Made Easy for Android.

Oregon State University (Corvallis, OR)
Teaching Assistant *(Mar 2016 - Jun 2016)*

American Red Cross (Portland, OR)
Lab Technician *(Jun 2015 - Nov 2015)*

Fred Hutchinson Cancer Research Center (Seattle, WA)
Research Intern *(Jun 2014 - Nov 2014)*

Whitman College (Walla Walla, WA)
Student Researcher *(Jun 2013 - May 2014)*
Chemistry Tutor *(Aug 2012 - May 2014)*
Food Service Manager *(Sept 2010 - May 2014)*

Organizing Committees

[Computational Cognitive Science Reading Club](#) (Stanford)
Bi-weekly reading group on research in computational cognitive science *(Apr 2024 - Present)*

[MBCT Seminar Series Organizing Committee](#) (Stanford)
Bi-weekly seminar series on interdisciplinary research in neuroscience *(2023/2024)*

[FriSem Organizing Committee](#) (Stanford)
Weekly seminar series on ongoing cog and neuro research in psychology *(2023/2024)*

Graduate Admissions Committee (Stanford)
Facilitating the process of graduate student recruitment *(2022/2023, 2023/2024)*

Community Involvement/Volunteer Experience

[Free Geek](#) (Portland, OR)
Computer Assembly and Disassembly *(Aug 2016 - Aug 2017)*

[Odd Fellows Old Folks Home](#) (Walla Walla, WA)
Grandparent Adoption Program *(Sept 2012 - May 2014)*

[Dougy Center](#) (Portland, OR)
Grief Facilitator *(August 2009 - July 2010)*

Extracurriculars

(Unofficial) Sprint/Exercise Club President *(Dec 2023 - Present)*
Whitman College Varsity Soccer *(Jan 2011 - Jun 2012)*
Whitman Badminton Club Vice President *(Jan 2011 - Jun 2013)*