

## Education

- New York University, Department of Psychology** New York, NY **Ph.D. 2012**  
*Model-based reinforcement learning in humans*, Cognitive Neuroscience, Nathaniel Daw advisor
- 2012 Martin Braine Fellowship
  - 2013 Douglas and Katharine Fryer Thesis Fellowship
  - Data modeling and fitting
  - Machine learning
  - Functional Magnetic Resonance Imaging
  - Teaching assistant for undergraduate and doctoral behavioral statistics
- California Institute of Technology** Pasadena, CA **B.S. 2003**  
 Bachelor's with Honor: Engineering and Applied Science, Concentration in Computer Science **GPA: 3.8**
- Operating systems and compiler design
  - Neural and learning systems

## Work Experience

- Digital Research Repository Services, NYU** New York, NY **Research Data Storage Architect 2016–**  
  - Worked with diverse group of researchers, librarians, and IT specialists to plan university data strategies
  - Designed, developed, and deployed new data and repository services for researchers across the university

**Databrary, NYU** New York, NY **Systems Architect/Technical Lead 2012–2016**  
  - Designed, built, supported, and oversaw continuing development of secure, academic video library
  - Worked in small team to develop novel, community-driven web interfaces for video and metadata editing
  - Full-stack, bespoke development of security-focused SQL/solr-based, video-streaming web application
  - All development open source: published various tools, and contributed patches to existing frameworks

**National Museum of Mathematics** New York, NY **Technical Volunteer 2016–**  
  - Helped diagnose and fix wide array of sophisticated exhibit software and hardware issues (8 hours/week)

**Rainfinity, EMC** Pasadena, CA; New York, NY **Senior Software Engineer 2003–2013**  
  - Worked in 3-person team responsible for developing and enhancing NFS virtualization product
  - Managed and updated product and development platform, architecture, and tools
  - Interacted with other teams and support on maintaining entire product and diagnosing customer issues
  - Applied and expanded knowledge of Linux kernel, NAS, network routing, and various other technologies

## Publications & Presentations

- Databrary: Enabling Sharing and Reuse of Research Video.**  
 Dylan A Simon, Andrew S Gordon, Lisa Steiger, Rick O Gilmore. In *Proceedings of the 15th ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL '15)*, ACM 279-280. 2015
- Model-based choices involve prospective neural activity.**  
 Bradley B Doll, Katherine D Duncan, Dylan A Simon, Daphna Shohamy, Nathaniel D Daw. *Nature Neuroscience*, 18(5) 767–772. 2015
- Disambiguating form and lexical frequency effects in MEG responses using homonyms.**  
 Dylan A Simon, Gwyneth Lewis, Alec Marantz. *Language and Cognitive Processes*, 27(2) 275–287. 2012
- Dual-system learning models and drugs of abuse.**  
 Dylan A Simon, Nathaniel D Daw. In *Computational Neuroscience of Drug Addiction*, ch. 5, Springer. 2012
- Environmental statistics and the trade-off between model-based and TD learning in humans.**  
 Dylan A Simon, Nathaniel D Daw. *Advances in Neural Information Processing Systems* 24, 127–135. 2011
- Neural correlates of forward planning in a spatial decision task in humans.**  
 Dylan A Simon, Nathaniel D Daw. *Journal of Neuroscience*, 31(14) 5526–5539. 2011

## Skills & Projects

### Technologies:

C, Haskell, \*sh, JavaScript, SQL, Scala, perl, R, OCaml, Java, C++, Matlab, python, scheme, Ruby, x86/x86\_64  
 Extensive knowledge of GNU/Linux, git, PostgreSQL, video, FreeBSD, NFS, TCP/IP, HTTP, HTML5, ...

### Open Source:

- Authored, maintain, and contributed to various projects (see github/dylex, dylex.net/src)
- Patches accepted to linux kernel, glibc, gcc, ghc, purescript, Play, git, ffmpeg, and many other projects
- Type-aware Haskell PostgreSQL interface; Android port of busybox and rsync (in CyanogenMod and others)