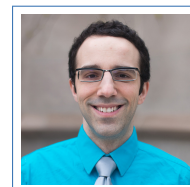


Chris Rishel

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Education

- 2016–2019 **Residency**, *Anesthesiology at Stanford University*.
- 2015–2016 **Internship**, *Internal Medicine at The University of Chicago*.
- 2007–2015 **M.D.**, *The Pritzker School of Medicine at The University of Chicago*.
- 2008–2012 **Ph.D. in Computational Neuroscience**, *The Committee on Computational Neuroscience at The University of Chicago*, 3.85/4.00.
 - The committee award for outstanding performance in computational neuroscience
- 2003–2007 **B.S. in Computer Science**, *The College of Engineering at The University of Illinois at Urbana-Champaign*, 3.80/4.00.
 - Graduated with Highest Honors
- 2003–2007 **B.S. in Chemistry**, *The College of Liberal Arts & Sciences at The University of Illinois at Urbana-Champaign*, 3.80/4.00.
 - Graduated Cum Laude

Ph.D. Thesis

Title *Interactions between cognitive and spatial signals in parietal cortex*

Advisor David J. Freedman

Summary The posterior parietal cortex plays a central role in spatial functions, such as spatial attention and saccadic eye movements. However, recent work has increasingly focused on the role of parietal cortex in encoding nonspatial cognitive factors such as visual categories, learned stimulus associations, and task rules. The relationship between spatial encoding and nonspatial cognitive signals in parietal cortex, and whether cognitive signals are robustly encoded in the presence of strong spatial neuronal responses, is unknown. My work directly compared nonspatial cognitive and spatial encoding in the lateral intraparietal (LIP) area by training monkeys to perform a visual categorization task during which they made saccades toward or away from LIP response fields (RFs). This revealed that strong saccade-related responses minimally influence robustly encoded category signals in LIP, suggesting that cognitive and spatial signals are encoded independently in LIP and underscoring the role of parietal cortex in nonspatial cognitive functions.

Research Experience

2008–2012 **Ph.D. Student**, *Laboratory of David J. Freedman*, The University of Chicago.

2004–2007 **Lead Developer**, *The University of Illinois Archives*, The University of Illinois at Urbana-Champaign.

Worked for The University Archives as the founding/lead developer on the award-winning *Archon Project*. Archon was developed to be an open-source, flexible, intuitive content management system to allow archival institutions to make information about their collections readily available to researchers through any web browser.

• **\$100,000 Winner**, *2008 Mellon Award for Technology Collaboration*

Vocational Experience

2009–2016 **Webmaster**, *The Department of Neuroscience*, Chicago, IL.

Responsible for customizing and deploying a database-driven content management system (Archon) for the departmental website. Created a system that allowed faculty and students to maintain their online profiles describing their research and publications.

2003–2007 **Systems Administrator**, *The University of Illinois Bands*, Champaign, IL.

Responsible for assuring the integrity and functionality of all servers and workstations on the department's network. Consulted with staff to design solutions to advance the department's technical resources and oversaw their implementation.

2000–2003 **Senior Web Developer**, *Motion Internet/Hanson Information Systems*, Springfield, IL.

Responsible for overseeing web development for contracted clients and in-house use. Developed a web application that integrated internal authentication and accounting servers and external network providers, allowing employees and customers to efficiently manage subscriber accounts.

Teaching Experience

Winter 2009 **Teaching Assistant**, *Mathematical and Statistical Methods for Neuroscience II*, The University of Chicago, prof. Wim van Drongelen.

Duties included grading homeworks, running weekly discussion sections, giving a lecture, running a lab session, grading exams, and designing a programming problem for the take-home final exam which required students to filter, detect, and sort spikes from multiunit data.

Fall 2008 **Teaching Assistant**, *Mathematical and Statistical Methods for Neuroscience I*, The University of Chicago, prof. Wim van Drongelen.

Similar duties to the winter quarter course.

2006–2007 **MCAT Teacher**, *Kaplan Test Prep*, Champaign, IL.

Responsible for teaching two to three three-hour classes per week, as well as providing out-of-class help to prepare students to excel on the MCAT (Medical College Admission Test).

Honors and Awards

- 2016 Choosing Wisely Challenge Winner, *University of Chicago Medicine*.
- 2015 Campus Life and Leadership Award, *University of Chicago Center for Leadership and Involvement*.
- 2014 Naomi Ragins-Goldsmith Career Development Award, *University of Chicago Medical Scientist Training Program*.
- 2013 The Committee Award for Outstanding Performance in Computational Neuroscience, *University of Chicago*.
- 2008 Mellon Award for Technology Collaboration, *Andrew W. Mellon Foundation*.
- 2007-2015 Trainee, *National Institutes of Health Medical Scientist Training Program*.
- 2007 Graduated with Highest Honors in Computer Science, *University of Illinois at Urbana-Champaign*.
- 2007 Graduated Cum Laude in Chemistry, *University of Illinois at Urbana-Champaign*.

Professional Memberships

- American Medical Association
- American Society of Anesthesiologists
- American Society of Composers, Authors and Publishers
- Society for Neuroscience
- Society for Technology in Anesthesia

Technical Skills

Languages	ASP, C, C++, CSS, HTML, Java, JavaScript, LaTeX, Mathematica, MATLAB, Node.js, PHP, Perl, Python, R, React Native, Visual Basic, Visual C++	Database	Microsoft SQL Server, MySQL,
		Platforms	PostgreSQL, SQLite, Realm

Interests

- 2007-2013 **Music Director, Album Producer**, *Voices in Your Head (A Cappella Group)*, The University of Chicago.

In the fall of 2007, Voices in Your Head was unknown beyond the University of Chicago campus. Through my directing, arranging, composing, album production, and mentorship to the group's future leaders, the group has become one of the most prominent collegiate a cappella groups in the world. During my tenure of leadership, both my individual work and the group have won numerous awards and compilation appearances at the international level.

- 2 nominations (1 win, 1 runner-up) for the Contemporary A Cappella Recording Award (CARA) for Best Professional Arrangement for a Scholastic Group (2015, 2016).
- 2-time winner of the CARA for Best Mixed Collegiate Arrangement (2012, 2013).
- 3 nominations (1 win) for the CARA for Best Scholastic Original Song (2011, 2012, 2013).
- 3 nominations (1 win, 2 runner-ups) for the CARA for Best Mixed Collegiate Song (2012, 2013, 2015).
- 3-time winner of the Outstanding Arrangement award at the International Championship of Collegiate A Cappella.
- Recordings I have arranged and produced have been featured on (inter)national compilation albums 22 times between 2008 and 2016.
- Frequent lecturer and clinician at national a cappella festivals (SoJam, BOSS, ACappellaFest).

Publications

Rishel, C. A., Huang, G. & Freedman, D. J. Independent category and spatial encoding in parietal cortex. *Neuron* **77**, 969–979 (2013).

Rishel, C. A., Huang, G. & Freedman, D. J. Interactions between spatial and non-spatial encoding in parietal cortex during visual categorization. In *Society for Neuroscience Abstracts 2011* (2011).

Schwartz, S. W., Prom, C. J., Rishel, C. A. & Fox, K. J. Archon: A unified information storage and retrieval system for lone archivists, special collections librarians and curators. In McIntosh, J. (ed.) *Preservation and Archiving: Challenges & Solutions*, chap. 3, 35–49 (Apple Academic Press, 2011), 1 edn.

Rishel, C. A. & Freedman, D. J. The influence of saccades on visual feature selectivity in parietal cortex during a visual matching task. In *Society for Neuroscience Abstracts 2010* (2010).

Swaminathan, S. K., McClellan, S., Rishel, C. A. & Freedman, D. J. A comparison of prefrontal and parietal cortices during visual motion categorization. In *Society for Neuroscience Abstracts 2009* (2009).

Schwartz, S. W., Prom, C. J., Rishel, C. A. & Fox, K. J. Archon: A unified information storage and retrieval system for lone archivists, special collections librarians and curators. *Partnership: The Canadian Journal of Library and Information Practice and Research* **2** (2007).

Prom, C. J., Rishel, C. A., Schwartz, S. W. & Fox, K. J. A unified platform for archival description and access. In *Proceedings of the 7th ACM/IEEE-CS joint conference on Digital Libraries*, 157–166 (ACM, 2007).