Dan J. Cook

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Education

Humboldt Universität zu Berlin, Germany   10/2014−10/2017
Berlin School of Mind and Brain
MSc, Cognitive Science

- Thesis on the role of language in visual & spatial cognition
- 2017 Einstein Master Award

The focus of the MSc "Brain Track" program was experimental cognitive science, including scientific computing in R and Python, and applied statistical analysis and modeling of behavioral and physiological data.

University of Central Florida, Orlando, FL.   09/2009−12/2013
Graduate Certificate, Cognitive Science

- Research on the philosophy of computational neuroscience

Eckerd College, St Petersburg, FL.   01/2002−01/2007
B.A., Philosophy, Psychology

- Research in clinical social work

Current Work

Freelance consultant & developer   04/2017−present
My recent projects include,

- Development of consensus algorithms for non-blockchain based distributed ledgers @ Helix Cognitive Computing GmBH, hlx.ai
- Website development @ ohlalab.de (ruby, jekyll, html, css, javascript)
- Website development @ Berlin School of Mind and Brain's Labs (PHP, html, css, mySQL)
- EEG-Lab, computer hardware configuration @ the Berlin School of Mind and Brain Electrophysiology Lab

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Publications

Cook, D., Martins, M., Villring, A. (2018). How domain-specific is Merge? In Cuskley, C., Flaherty, M., Little, H., McCrohon, L., Ravignani, A., & Verhoef, T. (Eds.). *Proceedings of the 12th International Conference on the Evolution of Language*. EvoLang Conference Proceedings. doi: 10.12775/3991-1.016

Invited Talks

How domain-specific is Merge? @ 12th International Conference on the Evolution of Language, 2018.

Computer Software

Python (advanced)
- Data analysis, machine learning – numpy, scipy
- Data Visualization – matplotlib, seaborn
- Databases - Pandas, HDF5, SQLlite
- Image processing – PIL, ski-kit image
- Web Scrapping – BeautifulSoup, requests, urllib
- GUI development – Tkinter
- EEG Analysis – MNE
- Brain computer interfaces – labstreaminglayer, wyrm, pyff

R programming (advanced)
- Descriptive stats and visualization
- Regression analysis
- Cluster analysis
- Generalized linear mixed models
- Generalized estimating equations (e.g. Classification)

Other software (varies intermediate - advanced)
- Databases - SQL, HDF5, Excel
- Microsoft Windows 7-10 OS, MAC OS X 10.6-10.13
- Git remote repository management
- MATLAB - psychological experimentation and analysis
- Website theme development in PHP
- Website development in Ruby with Jekyll
- HTML, CSS, JavaScript – Bootstrap, JQuery

Previous Work

ScienceOpen, GmBH   09/2014−12/2017
Handling editor, Peer review acquisitions

ScienceOpen is an online research network for sharing, evaluating, and aggregating scientific publications. Manuscripts submitted to *SO-Research* are published Open Access and evaluated in a fully transparent post-publication peer review. I served as the handling editor for *SO-Research*, managed the open, post publication peer review process, and worked on the development of the ScienceOpen social network.

- Created and managed email campaigns to engage users
- Prepared monthly analytic reports of subscriber database (in R & Python)
- Created visualizations of user publication data for website deployment
- Developed web-crawlers for publisher websites (in Python)
- Created and edited compelling content for website about pages (plain-text, html, css, Javascript)
- Handling editor & peer review manager for ScienceOpen Research (ISSN: 2119-2006)
- Managed over 100 peer reviews on 63 publications in the natural sciences
- Social media creation (on YouTube & Twitter)
- Creation of tutorial videos and promotion videos for users

Fraunhofer Institute for Telecommunications, Heinrich Hertz Institute   02/2016−11/2016
Machine Learning Department, EEG Lab,
Graduate student research assistant

The EEG Lab at the Fraunhofer Institute in Berlin analyzes image and video signals as they are perceived by human observers. The group develops algorithms that help to predict human image quality assessments, which are useful for the design and evaluation of new image and video presentation technologies. I was involved in a project investigating the use of EEG technology for extracting brain correlates of the human perception of video quality.

- Investigated the effect of VR devices on the quality of EEG signals for future experiments
- Prepared participants and conducted EEG experiments on visual perception
- Prepared visualizations of neural time series in MATLAB, Python & R
- Set-up computer hardware & software for brain computer interfaces
- Analyzed image and movies in Python (clustering algorithms)
- Maintained Wiki documentation for EEG Lab

Summer Study Programs Inc.   06/2012—08/2014
Director of student activities

Summer Study Programs Inc. was an education & travel company offering high school students an academically and socially enriching, summer education program at The Penn State University (PSU), The University of Colorado, Boulder (UC, B), Fordham University in New York City, and The Sorbonne University in Paris.

- Managed summer staff of between 20-30 camp counselors and educators
- Organized social activities for new students
- Negotiated contracts with events vendors (activities, hotels, and transportation)
- Led weekend-long trips with up to 6 buses, 22 staff, and 450 students at a time
- Acted as point of contact between parents, students, and directors of programs
- Recruited local and international students for summer programs
- Led courses on Debate, Psychology, Expository Writing, and the History of Rock & Roll for 5 summers

Orlando Rickshaw Company,   10/2009-09/2012
Assistant manager

- *Orlando Rickshaw Company* is a team of independent contractors and owners who provide hotel guests staying onsite at The Universal Studios, Orlando, FL with an exciting, memorable, human-powered, green-energy, novelty-transportation experience to and from their favorite locations on site. I drove for the company, and I managed the operations of 24 contractors during manager absences.

WestCare GulfCoast FL. Inc.   09/2008—08/2009
AmeriCorps State & National
Local program leader

- *WestCare GulfCoast FL. Inc* is a US national non-profit (501-k) providing human services to people suffering from a variety of health problems including homelessness, illiteracy, & substance abuse and dependence. I worked as an intake-specialist at a local site providing first-response relief to homeless drug & alcohol users. I provided editorial assistance to the nationwide Grant Coordinator for the program.

Teaching

- Debate Class Instructor   07/2013—08/2013
  Summer Study Programs Inc.,
  Pennsylvania State University, PA

- Psychology Class Instructor   06/2008—08/2008
  Summer Study Programs Inc.,
  University of Colorado, Boulder

- Debate Class Instructor   06/2006—08/2006
  Summer Study Programs Inc.,
  Pennsylvania State University, PA

- Debate Class Instructor   06/2005—08/2005
  Summer Study Programs Inc.,
  Pennsylvania State University, PA

Languages

Native English Speaker   German (level A2.1 – A2.2)

Contacts & References

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