

Dan John Cook

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Education

Master of Science, Brain-track

Humboldt Universität zu Berlin, Berlin School of Mind and Brain 10/2017

- 2017 Einstein Master Award

Postgraduate Certification, Cognitive Science

University of Central Florida, Orlando 12/2013

- President of the Cognitive Science Student Association, 2011

Bachelor of Arts, Philosophy, Psychology (minor)

Eckerd College, St Petersburg, FL. 12/2007

- Academic high honors, GPA 3.97

Current Employment

Project management - Cognitive Sciences (1+ years)

Helix Cognitive Computing, GmbH 02/2018–present

- Built a simulation and modeling pipeline in Python of a peer-to-peer network including transport, communication, consensus, and peer synchronization protocols
- Developed consensus algorithm for a transactional database modeled as a Directed Acyclic Graph (DAG)
- Developed machine learning methods for the detection of duplicate content in the distributed database
- Developed machine learning methods for estimating the size of a network given the accurate number of hops from source to sink for packets detected at sink destination

Previous Employment

Computer hardware and software consultant (4 months)

Berlin School of Mind and Brain EEG Lab 07/2017–11/2017

- Set-up and testing of research-grade electroencephalography (EEG) equipment
- Set-up, testing, and model-based correction of CRT-monitor with color photometry

Website development (6 months)

Ohla Lab for Neuroscience 06/2017–08/2017

- <http://www.ohlalab.de/>
- Website theme development in PHP (Wordpress), theme development in Ruby (Jekyll)

Berlin School of Mind and Brain's Labs 08/2017–11/2017

- <https://www2.hu-berlin.de/ef-dg/mbwiki>
- Website theme and content creation (MediaWiki, Php, myPhpAdmin, MySQL, Apache Server)

Graduate student research assistant (9 months)

Fraunhofer Institute for Telecommunications,
Machine Learning Department 02/2016–11/2016

- Conducted EEG experiments on visual perception
- Analyzed time series data in MATLAB, Python & R
- Researched the effects of VR devices on the quality of EEG signals
- Researched the effects of different codecs for video and image perception
- Analyzed image and movies in Python (clustering algorithms)
- Organized computer hardware & software for brain computer interfaces

Content editor, Peer review manager (3+ years)

ScienceOpen GmbH

10/2014–12/2017

- Developed Python web-crawlers
- Prepared monthly analytic reports for subscribers (in R & Python).
- Created tutorial videos for platform users
- Created marketing content for future platform users
- Managed over 100 peer reviews on 63 publications in the natural sciences for the journal ScienceOpen Research (ISSN: 2119-2006)
- <https://www.scienceopen.com>

Director of student activities (2+ years)

Summer Study Programs Inc.

06/2012–08/2014

- Recruited local and international students for summer programs (sales)
- Organized social activities for students (event management)
- Negotiated contracts with event and transport vendors
- Co-managed summer staff (between 20-30 teachers and camp counselors)
- Led weekend-long trips (up to 6 buses, 22 staff, and 450 students)
- Acted as point of contact between parents, students, and directors of programs (dispute handling)
- Taught courses on Debate, Psychology, Expository Writing, and the History of Rock & Roll for 5 summers at Penn State University and University of Colorado, Boulder

Computer Software

Python 3.6 & 2.7 (4+ years)

- Objective oriented programming
- Monte Carlo Simulation
- Data analysis & visualization
- Matrix algebra & machine learning
- Time series analysis
- Networks / web programming
- GUI development

R (4+ years)

- Linear regression with continuous response and predictor variables
- Cluster analysis with unordered and ordered sets of categories
- Generalized linear mixed models for continuous and categorical response variables with continuous and/or categorical predictors

Other (varies)

- Multiprocessing/multithreading
- Message passing interface
- SSH, RSA, Lamport signatures
- MongoDB, HDF5
- HTML, CSS, NodeJS
- Git
- Ubuntu 18.04.01
- Mac OS, OS X, macOS
- Windows 7-10

Language

English (Native)

German (A2.1 – A2.2)

Publications

Cook, D., Martins, M., Villringer, 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*. doi: 10.12775/3991-1.016

Contacts & References

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