

# Geoffrey Gordon Ashbrook

## Data Scientist

[Portfolio](#) [Github](#) [Linkedin](#)

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**Purpose** Make commerce better for everyone using data.

**Vision Statement** Data Scientist, whose experience in [AI research](#) started in **2002**, with an interest in language comprehension, consciousness, nonlinear dynamical systems, machine ethics, and bio-ecology. Sees communication, storytelling, best practice, **Agile** project management, cultivating lifelong learning in diverse interdisciplinary teams, and utilizing data as critical for business & societal solutions.

**Skills** 3.5+ Years: Python | R | C | HTML | SQL | spaCy | Linux | Natural Language Processing | Amazon AWS: Elastic Beanstalk, EC2, Sagemaker, ACM, Route53 | REST API Endpoints | ML Machine Learning | NN Neural Networks | Deep Learning | Recommendation | Clustering | Analysis | Unit Testing | Heroku | Flask | Django | Plotly Dash | Jupyter | Colab | Anaconda | NumPy | Pandas | sklearn / Scikit-Learn | scipy | Matplotlib & Seaborn | Keras / TensorFlow | Data Visualization | Statistics | Hypothesis Testing | Model Validation | Data Structures | Algorithms | Biology | Teaching | Agile | SCRUM | 6sigma

**Projects**

Sanctions Website, *Center for Advanced Defense Studies*, [Medium Blog](#), 2020

- Conducted NLP **entity-extraction** on unstructured documents for data mining and Engineered data **search** in Python
- Supported date-time-search graphical display with **cross-functional** team : 5-web, 1-UX, 3-DS 8-week **Agile** project
- Designed schemas for modeling networks of **NLP**-entities
- Integrated World-Bank-**API** data sets with NLP-mined engineered data
- Prioritized and streamlined group production goals and delivery schedule

Natural Language Processing Recommender, [Github Repo](#), 2020

- Adapted NLP Basilica (word-vector) **embeddings** via Python to match patient symptoms and medicine-effects to database of **3k+** treatment options
- Achieved high accuracy (**100% accurate** [fuzzy matching](#))
- Deployed Heroku plotly-dash & Team-Site Machine-Learning Powered Medicine Recommender
- Collaborated with cross-functional team 1-UX, 2-ML, 4-Data Engineer, 2-Backend, 2-Frontend

Data Engineering, Reddit-Post Recommender, [Github Repo](#), 2019

- Lead and re-organized short-handed team accomplishing goals on a tight schedule
- Managed goal reorganization and product design
- Collaborated with cross-functional team: 2-Frontend, 1-Backend, 2-Machine Learning, 1-UX, 2-Data-Engineers
- Employed **Flask** and Python, for pre-ML training-**scraping**, DS-API and backend **REST API**

AI Augmented Meeting Moderation Software with Skip Ellis, *CU Boulder*, [Project Neem](#), 2003

- Collaborated with Prof. Clarence (Skip) Ellis and PhD candidates
- Aimed to achieve zoom-like tele-meeting framework with an ELIZA-like NLP expert-system to assist users with both secretarial-logistics and cultural-mediation tasks
- Produced Human Computer Interactions foundation for Agent design

**Experience** Science & Language Edu | Instructor 2006-2015 US, Japan

- Explained technical topics to wide variety of clients
- Broke down large projects into **testable**, operationally defined, smallest parts
- Completed projects that depended on **Agile** management for delivering stakeholder goals
- Instructed clients from preschool level to company directors, in a variety of sites/roles; responsibilities included assessment, hiring, materials creation, program and curriculum design
- Received consistent very positive client feedback on performance

**Education** Lambda School | Remote 9+month Data Science & Computer Science Program 2019-2020  
University of Colorado, Boulder | BA in Biology, Science-Teaching Cert & Licence 1996-2005