Alexander Spangher

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EDUCATION	**Columbia University**, M.S. in Data Science	*Class of 2017*
	Columbia University, B.S. in Neuroscience *and* B.S. in C.S.	*Class of 2014*

RELEVANT EXPERIENCE

New York Times, NYC, NY *Data Scientist*   *2014- present*

- Designed and implemented LDA-based article recommendation algorithm, scaled to all users. Built using Luigi-powered data pipelines, MySQL data storage, and WSGI API layer. See blogpost: https://open.blogs.nytimes.com/2015/08/11/building-the-next-new-york-times-recommendation-engine/.

- Launched ML tools to improve newsroom processes. Used unsupervised variational and embedding approaches and NLP feature engineering. Designed architecture using Google Cloud Services: DataStore, GKE and BigQuery.

- Used MTurk to crowd-source emotion-tags for articles. Constructed classifiers to learn these tags with deep and shallow approaches. Developed distributed gridsearch pipeline using Spark and CloudML to explore parameter space.

- Designed Bayesian models for Followable-recommendation algorithm. Implemented using Scipy optimization packages.

- Explored extensions of article-recommendation algorithm using multi-armed and contextual bandit algorithms.

- Conducted statistical analyses of audience segments and assessed causal impact of new products.

Huffington Post, NYC, NY *Software Engineering Intern*   *Summer 2013*

- Redesigned the core framework of the user-profile API using Scala.
- HuffPost Hires app (Angular/Clojure/MongoDB). Improved interview process.

SustainabilityExcellence, Amman, Jordan *Consulting Intern*   *Summer 2012*

- Built MYSQL framework for Emir of Qatar's Sustainability Conference.

ADDITIONAL EXPERIENCE

New York Times: Diversity Initiatives: *Co-chair and Founder* of the New York Times Young Professionals Network. *Acknowledged contributor* to Unpublished, a photo-novel on Black history.
Marvel Theater: *Double Bassist* for critically-acclaimed off-Broadway play.

ACADEMIC HONORS and LEADERSHIP

John Jay Scholar: Neuroscience and Computer Science, Columbia University.
Dean's List: Columbia College
Scholarships: Intel STS Semi-finalist, National Merit Scholarship
Op-Ed Writer: Weekly Blogger at Columbia Spectator.

Languages & Software used in production: Python, SQL, D3.js, Javascript, JQuery, Java, Scala, C, C++, CUDA, OpenCL, LaTeX. Google Cloud Services, Amazon Web Services. Spark, DataBricks. Kubernetes, Docker, Drone. SkLearn, Tensorflow, Keras, CVXOpt. NVIDIA.