

## BRENDAN DUNCAN

---

SUMMARY	Seeking full- or part-time research or software engineering position. Particular interest in data science, machine learning, artificial intelligence, and big data. Proven collaborative skills. Thorough, organized, and scientific, with an enthusiasm for innovation.	
EDUCATION	<b>PhD in Computer Science, University of California, San Diego</b>	On leave
	<ul style="list-style-type: none"><li>• GPA 4.0.</li></ul>	
	<b>MS in Computer Science, Stanford University</b>	6/2011
	<ul style="list-style-type: none"><li>• GPA 3.85.</li></ul>	
	<b>BS in Computer Science, University of California, San Diego</b>	6/2009
	<ul style="list-style-type: none"><li>• Degree awarded <i>summa cum laude</i>. GPA 3.90.</li><li>• Phi Beta Kappa and Tau Beta Pi honor societies.</li></ul>	
SKILLS	Data Science, Machine Learning, Hadoop, Pig, Python, Pandas, MATLAB, Java, C++, C, L <sup>A</sup> T <sub>E</sub> X, MongoDB, SQL, VIM, IntelliJ IDEA, Microsoft Visual Studio, Eclipse, Git.	
PUBLICATIONS	Duncan, Brendan and Elkan, Charles: <i>Nowcasting with Numerous Candidate Predictors</i> : European Conference on Machine Learning (ECML PKDD), Nancy, France, 2014. Springer (2014).	
	Duncan, Brendan and Elkan, Charles: <i>Probabilistic Modeling of a Sales Funnel to Prioritize Leads</i> : SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), Sydney, Australia, 2015. ACM (2015).	
PENDING PATENTS	Brendan Duncan: <i>System and Method for Full Funnel Modeling for Sales Lead Prioritization</i> : March 16, 2015.	
	Brendan Duncan: <i>System and Method for Using Marketing Automation Activity Data for Lead Prioritization and Marketing Campaign Optimization</i> : June 30, 2015.	
	Dan Chiao, Brendan Duncan, Liang-Yu: <i>System and Method for Lead Prioritization Based on Results from Multiple Modeling Methods</i> : June 30, 2015.	
INVITED TALKS	<i>Modeling a Sales Funnel and Lead Behavior for Predictive Lead Scoring</i> . Big Data for B2B Marketing and Sales Workshop, IEEE International Conference on Big Data, October 29, 2015.	
EXPERIENCE	<b>Senior Software Engineer, LinkedIn, San Francisco, CA</b>	8/2015 - 9/2016
	<ul style="list-style-type: none"><li>• Worked to integrate Fliptop's product with LinkedIn Sales Solutions after acquisition. Modified machine learning engine to exploit LinkedIn data and fulfill security and privacy requirements.</li><li>• Researched and implemented minimally invasive randomization for collecting unbiased user preferences in LinkedIn Sales Solutions search data.</li></ul>	
	<b>Data Scientist, Fliptop, San Francisco, CA</b>	6/2014 - 8/2015
	<ul style="list-style-type: none"><li>• Participated in sales calls and on-site meetings to explain and promote Fliptop's data science technologies to customers and prospective customers.</li><li>• Met with marketers and salespersons to discuss relevant data and engineer meaningful signals for machine learning models.</li><li>• Devised several novel modeling technologies for predicting lead conversion.</li><li>• Incorporated marketing activity data into customer models using a novel feature representation that leverages latent dirichlet allocation.</li></ul>	

- TA for Theory of Computation, UCSD, San Diego, CA** 3/2013 - 6/2014
- TA for Graduate Machine Learning Course, UCSD, San Diego, CA** 1/2013 - 3/2013
- Conditional random fields, Gibbs sampling, Latent Dirichlet Allocation, recursive neural networks, autoencoders, backpropagation, learning the semantics of sentences and words.
- Teaching Assistant for Artificial Intelligence, UCSD, San Diego, CA** 9/2012 - 12/2012
- A\* search, constraint satisfaction, Bayesian networks, reinforcement learning, neural networks.
- Software Engineering Intern, DR Systems, San Diego, CA** 6/2012 - 9/2012
- Used OpenCV and C++ to verify image compression pipeline and implement efficient image similarity metrics.
  - Used Common Language Infrastructure (CLI) and C# to create an interface between C++ pipeline and C# NUnit test framework.
  - Worked with Visual Studio IDE and Jenkins continuous integration environment.
- Course Assistant for Digital Photography, Stanford University, CA** 3/2011 - 6/2011
- Research Intern, Intuitive Surgical, Sunnyvale, CA** 6/2010 - 9/2010
- Implemented novel capture method using DALSA camera's C API and an external trigger.
  - Used CUDA and a variety of processing algorithms to perform real-time removal of color artifacts that resulted from capture method.
  - Demonstrated the resulting real-time capture and display in an interactive live laboratory in front of surgeons and researchers.
- Tutor for Data Structures, UCSD, San Diego, CA** 4/2007 - 6/2009
- Interim Engineering Intern, Qualcomm, San Diego, CA** 6/2008 - 11/2008
- Developed a Windows GUI application using Microsoft Visual Studio and C++, which allowed testers to create and run customized PHP test scripts that used COM objects to interface with the team's cell phone application and other Qualcomm programs.
  - Wrote extensive documentation and trained testers in the use of this application.
  - Created Perl and PHP scripts using Perforce commands to automate weekly application release, which was previously a time-consuming process.
- Programmer, Global CONNECT, San Diego, CA** Summer 2007 and 2009
- Using Perl and Bash in a Cygwin environment, developed scripts to efficiently and robustly extract key data from US patent applications, census reports, and other government records.
  - Utilized Perl regular expressions, dictionaries, and multidimensional arrays to collect, filter, examine, and manipulate this data.