Contact

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(LinkedIn)
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Top Skills

Apache Spark
Data Science
Machine Learning

Certifications

Social and Economic Networks:
Models and Analysis
Mining Massive Datasets

Publications

Improving Online Digital Marketing
Attribution Models with Factorization
Machines, Part II

Improving Online Digital Marketing
Attribution Models, Part I

Patents

Sound event processing with echo
analysis

Detection of voice inactivity within a
sound stream

Apparatus and method for
performing hosted and secure
identity authentication using
biometric voice verification over a
digital network medium

Apparatus and method for
notification of a party in a telephone
conference

VC-to-DTMF interfacing system and
method

Karl Gierach

Head of Data Science
Irvine, California

Summary

Goal: to serve as a Data Scientist and Researcher who works closely
with Management, and Development for the goal of discovering and
exploiting the hidden value in data. I also value providing leadership
by mentoring, and helping individuals to collaborate, set goals, and
ultimately define their career paths.

Extremely thorough, detail and process oriented. Experience in
the full life-cycle of software product development. Proven ability
to adapt within previously unknown technical environments, and
flourish. Innovator and problem solver. Excellent communication
skills are complemented by strong organization and ability to work
autonomously as a team player in both structured and unstructured
settings.

Well versed in general business skills and enjoys entrepreneurial
activities.

Experience

Conversion Logic
Principle Data Scientist
March 2019 - Present (1 year 1 month)
Greater Los Angeles Area

CAKE (getCAKE.com)
3 years 7 months

Head of Data Science
February 2017 - December 2018 (1 year 11 months)
Newport Beach, CA

Responsible for leading a data science team developing machine learning
and data mining algorithms utilizing applied mathematics and statistics for
improving online advertising campaign effectiveness.

Focused on implementing Multi-Touch Attribution Models, Click Prediction Models, and Recommendation Engines, with the goal of improving Return on Advertising Spend (RoAS).

Authored (2) Machine Learning based U.S. Patents titled "Method for Targeting Electronic Advertising by Data Encoding and Prediction for Sequential Data Machine Learning Models", and "Non-converting Publisher Attribution Weighting and Analytics Server and Method", respectively. Both Patents are currently pending. Summarized patents with public facing Blog posts, to showcase the technologies developed.

Sr. Data Scientist
July 2016 - February 2017 (8 months)
Newport Beach, CA

Responsible for developing machine learning and data mining algorithms focused on improving online advertising campaign effectiveness.

Currently focused on implementing Multi-Touch Attribution Models, Click Prediction Models, and Publisher Recommendation Engines.

Data Scientist / Big Data Engineering
June 2015 - July 2016 (1 year 2 months)
Newport Beach, CA

Responsible for developing machine learning and data mining algorithms focused on improving online advertising campaign effectiveness.

SourceThought
Lead Software Engineer
May 2013 - June 2015 (2 years 2 months)
San Juan Capistrano, CA

A firm focused on Data Discovery and Data Shaping exclusively on Hadoop.

I am responsible for machine learning algorithms which analyze data and perform data discovery between disparate data sets. Often prototype algorithms using R. Authored the product's plugin architecture for ingesting external datasets into Hadoop. Authored the product's data profiler which aggregates statistics about data while running in Hadoop/MapReduce. Authored the product's Java and Javascript (Node.js) software that bridges the application to Hadoop Services, such as MapReduce, Hive, Pig, Impala, and HDFS.

Spireon, Inc.
Principal Engineer
November 2011 - April 2013 (1 year 6 months)
Irvine, CA

Worked as a Principal Software Engineer on a SAAS product designed to
handle millions of transactions per day with high reliability. Formally designed
and implemented the network facing and message parsing components in
a scalable architecture using Java 1.7. Integrates with F5 load balancer,
enterprise grade monitoring. Served as MongoDB (Big Data) Architect
interfacing with 10Gen (MongoDB parent company) to determine a sharding
strategy. Worked on the next generation product using the Groovy / Grails
software stack, running within Java.

Ortiva Wireless, Inc.
Senior Software Engineer
March 2010 - November 2011 (1 year 9 months)

Working as a software engineer focused on optimizing video over wireless
networks.

AVST- Applied Voice and Speech Technologies, Inc.
Senior Software Engineer
November 2000 - March 2009 (8 years 5 months)

Worked as a Senior Software Engineer, for over 8 years. I served as a
Technical Leader and Architect and full life-cycle implementor for a speech
enabled, unified messaging software product.
Key Roles / Accomplishments:
-Authored fully tested solutions, developed in house, as per product
requirements.
-Provided significant innovation and worked with IP attorneys to file multiple
patents.
-Performed expert-level multi-threaded Java application development,
including Web Services.
-Performed Speech Recognition Integration, and Text-To-Speech Integration,
specifically MRCP V1 & V2, SSML markup, VoiceXML markup, W3C grammar
architecture.
-Personally authored speech subsystems capable of handing 192
simultaneous channels for high density deployments.
-Performed expert-level multi-threaded, real-time, event driven, C++
development.

-Authored Computer Telephony Integration, including SIP / RTP / Dialogic. Authored and coded state-models, resulting in high levels of reliability.

UIC
Visiting Research Engineer
August 1999 - August 2000 (1 year 1 month)

Staff Researcher in Industrial Virtual Reality Institute (IVRI) under supervision of Dr. Prashant Banerjee. Investigated the use of Java / Jini applied to virtual reality and its use in manufacturing. Introduced the results of the investigation in several lectures within a graduate level course. Produced and published papers summarizing the research.

Encyclopaedia Britannica
Software Engineer
February 1997 - May 1998 (1 year 4 months)

Worked in a closely knit team as the primary software engineer developing an on-line portal for human ranked online web content, organized in the same structure as the Encyclopaedia. The Informix (Illustra) object-relational SQL database was used. Coded dynamic procedures, and back-end web service hooks [aka. mashups]. Coded stress tests to ensure reliable system functionality under heavy load. Continuously innovated to produce solutions for both internal and external operations.

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Education

University of Illinois at Chicago
Master of Science, Computer Science · (1996 - 2000)