Skills

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Machine Learning

I've been doing AI/ML since 2005 - over 15 years.

- K-Means
- Markov Models
- Bayesian networks
- Association Rules
- Collaborative Filtering/Recomendation Engines
- Simple Neural Nets
- Deep Learning Neural Nets
- Semantic Web/LinkedData/Knowledge Graphs
- WordNet
- Image Classification
- Object Identification
- Segmentation

Algorithms & Techniques

I once had to write a Java implementation of trie to do high performance substring matching, because it didn't exist at the time.

- Data Modeling: Hierarchical, Network/Graph, Value/Multi-Value, Object Oriented, Relational, Multidimensional
- Data Warehousing: Kimball, Medallion
- Specialized: R-Tree (spatial index), Bloom Filter (probabilistic set membership)
- Caching, indexing, performance optimization: In-Memory, Distributed, HTTP, Filesystem
- Advanced multi-layer debugging (any system)

Cloud and Infrastructure

I may or may not have run a datacenter in my basement… :)

- Co-Location/Physical/Datacenter
- Amazon Web Services (AWS)
- Microsoft Azure
- Google
- Heroku
- Rackspace

Data

I've been using databases for 30 years… starting with Hypercard in 1994.

- Raw/Binary, CSV, Tab, Fixed
- TIGER Database (US Census Bureau Geographic database)
- XML, JSON, BSON, RDF, XSD, OWL, RDFS, YAML
- SQL, tSQL, SPARQL, LINQ, LDAP, MDX, XPath, XQuery
- Redis, Memcache

- MS SQL Server (including in-memory & columnstore indexes)
- MS SQL Analysis Services
- MySQL
- MS Power BI/PowerPivot/SSAS Tabular Model, a little Oracle
- CouchDB, Amazon DynamoDB, MongoDB, CosmosDB
- Amazon SimpleDB, Cassandra
- Azure Stream Analytics, Apache Spark
- Neo4J, Stardog, Openlink Virtuoso
- HDFS/Hadoop, Hive, HBase, custom MapReduce jobs
- SSIS, Mule, RedPoint

Programming Languages

I've been coding since age 6 or 7. That's nearly 40 years… see photo below.

My first paid coding job was at age 14.

- Python
- GoLang
- Rust
- Java
- JavaScript/NodeJS
- C#
- PHP
- Perl
- Ruby
- ActionScript
- Objective-C
- ColdFusion
- Countless shells, basics, and other scripting languages

My 9th Birthday... already a fan of computing...

Devops

When I first worked with AWS, they had 3 services… (S3, SQS, and EC2)

- Kubernetes
- Docker
- Helm
- Ant
- Ivy
- Maven
- Atlassian Bamboo
- Docker
- Hyper-V, VirtualBox, VMWare
- Bitbucket Pipelines
- Github Actions
- Jenkins/Hudson

Search

In 1999, I hand-crafted a TD/IDF-based auto-completing search engine as a java applet which ran over the internet and locally via CD-ROM.

- Solr
- ElasticSearch
- SQL Server Fulltext
- Lucine
- Google Search Appliance
- Fast (now Microsoft)
- Azure Cognitive

Front-End

My first HTML work was in 1994, while I was in a mentorship program at Cray Research. I was using an SGI workstation and early version of Mosaic web browser.

- HTML5
- Xamarin, iOS/Cocoa, Android, J2ME
- CSS, Bootstrap
- jQuery, Prototype/script.aculo.us, MooTools
- Knockout, AngularJS, Backbone.js, Dojo
- Handlebars, Jade
- YUI, Ext JS
- Google Web Toolkit
- Flash/Flex
- Java AWT and Swing
- Microfrontends (long before they were even called that…)

Imaging/Video

- ASP.NET
- J2EE
- J2SE
- Estimote SDK
- Hybernate (both Java and .NET), EntityFramework
- Tomcat, Glassfish, JBoss, and some experience with Oracle & IBM
- Ruby on Rails
- Node.js, Express
- Jena (Semantic Web)
- R
- SmartThings, HomeSeer
- Mahout, OpenNLP, Weka, RapidMiner

Imaging/Video

- Various frameworks in Java, Python, .NET, and more.
- OpenCV
- PIL
- ImageMagik (PHP, .NET and Java integrated)
- Scene7 (and other DAMs and DAM-like systems)
- Scripting of numerous Adobe products including InDesign, Photoshop, and AfterEffects
- Adobe Media Encoder

Platforms & Apps

- IIS, Apache1, Apache2, Nginx
- SalesForce, Microsoft Dynamics CRM
- Netsuite, Odoo, Hubspot, SAP, Microsoft Dyanmics AX
- Adobe AEM, SiteCore, LifeRay, SharePoint, Documentum, Vignette, Alfresco, Sitefinity, DaisyCMS
- Wordpress, Drupal, NukePHP, Joomla
- Hybris, ElasticPath, osCommerce, Magento 2
- Paypal, Authorize.NET
- Vertex
- USPS, UPS, Fedex
- XMLSpy
- Google Maps, Microsoft MapPoint, Yahoo Map API
- Facebook apps, Twitter integration
- Datasift, Radian6
- Exact Target, MailChimp, Twilio

Process

- Vendor selection
- Mergers & Acquisition Due Diligence
- Agile/Scrum/XP
- Kanban
- Waterfall
- BPMN/BPML