

# stevenwerner

computer (neuro) scientist

## contact

StevenWernerCS@gmail  
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## programming

♥ Java Python & Bash  
PHP JS jQuery JSP  
Scala C++ MatLab  
Visual Basic AutoIt  
VXML L<sup>A</sup>T<sub>E</sub>X

## full stack

git maven gradle  
Redmine Jira Gerrit  
Jenkins GitLab  
Kube Rancher  
Spring B/D/C  
Docker AWS  
spark bootstrap

## data

♥ SPARQL & RDF  
TF, PyTorch, pandas  
Ontologies  
PostgreSQL  
solr Hibernate

## editors

♥ IntelliJ Vim  
pyCharm jupyter  
netbeans Eclipse

## operating systems

♥ CentOS Linux & Mac  
Windows w/ linux

## languages

Native English  
Elementary Spanish

## experience

2018-Present **Raytheon: Intelligence and Space** (Interim TS Clearance) Richardson, TX  
*Science & Technology: Senior Software Engineer & Data Scientist*  
ML/DL based Natural Language Processing: knowledge extraction, topic classification, information retrieval, document similarity & question answering

- *Collaboration Awards*: Data & ETL Project Lead for TITAN & DCGS-A CD1
- *Innovation Award*: Attributed Point Pattern matching & Route Analytics
- *Patent Award*: Question Answering Models in Closed Domains
- *Authors and Inventors Award*: from the IIS Innovation Center for exceptional design architecture and implementation contributions to an Internal Research and Development project in my first 6 months

2014-2018 **Lymba Corporation** Richardson, TX  
*Product Manager/Software Engineer*  
Natural Language Processing and Research: knowledge extraction, topic classification, information retrieval & question answering

- Fill many roles: applications architect, team leader, developer, presenter
- Hands on all aspect development, data retrieval, pre-processing, back-end & front-end design and implementation

2012-2014 **Interactive Systems Group (ISG)** University of Texas at El Paso  
*Undergraduate Research Assistant*  
Researched the utility of prosody in spoken information retrieval.

- Developed a prosody based audio search application (Didi-Sidekick)
- Improved on distance similarity model using linear regression
- Joined lexical and prosodic models using raw probability estimates

## publications

Text Analytics **Knowledge extraction for literature review** JLDC 2016  
Tatiana Erekhinskaya, Mithun Balakrishna, Marta Tatu, Steven Werner, Dan Moldovan

**Automatic Extraction of Actionable Knowledge** ICSC 2016  
Marta Tatu, Mithun Balakrishna, Steven Werner, Tatiana Erekhinskaya, Dan Moldovan.

Q A **K-Extractor: Automatic Knowledge Extraction for Hybrid Question Answering** ICSC 2016  
Mithun Balakrishna, Steven Werner, Marta Tatu, Tatiana Erekhinskaya, Dan Moldovan

**Semantic Question Answering on Big Data** SBD 2016  
Marta Tatu, Steven Werner, Mithun Balakrishna, Tatiana Erekhinskaya, Dan Moldovan.

Info Retrieval **Evaluating Prosody-Based Similarity Models for Information Retrieval** MediaEval 2013  
Steven D. Werner, Nigel G. Ward.

**The Similar Segments in Social Speech Task** MediaEval 2013  
Nigel G. Ward, Steven D. Werner, David G. Novick, Elizabeth E. Shriberg, Catharine Oertel, Louis-Philippe Morency, Tatsuya Kawahara.

**Using Dialog-Activity Similarity for Spoken Utterance Retrieval** InterSpeech 2013  
Nigel G. Ward, Steven D. Werner. 1569-1573

**A Prosody-Based Vector-Space Model of Dialog Activity for Information Retrieval**  
Speech Communication  
Nigel G. Ward, Steven D. Werner, Fernando Garcia, Emilio Sanchis.

## old projects

gh://StevenWernerCS

### Zulu

Minecraft Malmo  
Towards bio-realistic  
neural networks

### SenQual 2013

Weather Data  
Anomaly Detection  
Web Application

### MIPS emulator 2013

decodes asm2machine  
executes instructions  
updates registers

### 8bit Controller 2012

Nintendo puck on USB  
Serial port comms

### Money Clock 2010

Counted money made  
instead of time past

### MineSeeperBeater 2005

bot visually plays with  
mouse moves/clicks  
my first script

## references

### professional

Dr. Mithun Balakrishna  
Lymba Director of  
Research and  
Engineering  
mithun@lymba.com  
Richardson, TX

### research

Dr. Nigel Ward  
ISG Advisor  
UTEP CS Professor  
nigel@utep.edu  
El Paso, TX

### peer

Dr. Shreyas Karkhedkar  
ISG Labmate / TA  
Google Analytics  
karkhedkar.shreyas@  
gmail.com  
Mountain View, CA

## education

2022

**Masters** in Applied Cognition and Neuroscience

University of Texas at Dallas

GPA: 3.89 (In progress)

- Computational Modeling/Intelligent Systems Specialization Area

2013

**Bachelors** in Computer Science

University of Texas at El Paso

Major GPA: 3.7, Overall GPA: 3.3

- Selected for the *NSF Research Experience for Undergraduates Program*

2011

Computer Engineering

King Mongkut's University of Technology at Thonburi, Bangkok

Signals & Systems, Digital Circuits Engineering & C Programming

2008

**Associates** of Mathematics

El Paso Community College, Texas

Overall GPA: 3.5

## other experience

2010–2011

**KBR, Al Asad Air Base**

Al Asad, An Abar Province, Iraq

*Aviation Fuels Accountant (Security clearance: SECRET)*

Responsible for maintaining accountability records of all KBR's fuel on airfield.  
(Capacity of 795,000 Gallons of JP-8 jet fuel)

*KBR Star Award*: Increased efficiency & accuracy of Fuels Accounting Office.

- Within 2 months of assignment developed automated forms and reports through MS Word/Excel/Outlook automation with **Visual Basic**.
- Automated records aided in identifying meter errors well before calibration date requirements

*KBR Appreciation Award*x3: Perfect fuel accounting audit scores

2008–2010

**Mesilla Valley Transportation**

El Paso, Texas

*Over The Road Driver*

Approx. 300,000 commercial miles driven.

No accidents, no incidents, virtually no supervision.

Drivers Education: Commercial Drivers License: Tanker, Doubles/Triples

- Mesilla Valley Transportation Institute 2008 El Paso, Texas
- **Highest GPA of class**

2005–2006

**CAI Tutoring Lab, El Paso Community College**

El Paso, Texas

*Certified All Level Math/Physics Tutor*

Unstructured setting: one on one, few on one & large groups.

2003–2009

**900<sup>th</sup> Quartermaster Company, United States Army Reserves**

El Paso, Texas

*Petroleum Supply Specialist E-4*

STATUS: **Honorably Discharged**

- **Battalion Soldier of the Year 2005**
- **Army Achievement Medal**x4

Served as unit's acting Communications Sergeant

- Maintained SINCGARS other military communications equipment.

Military Education includes:

- 2008 Ft. Irwin, CA: U.S. Army Certified Combat Lifesaver
  - Trained in Casualty First Aid, including administering an IV
- 2004 Ft. Lee, VA: AIT MOS 77F/92F Distinguished Honor Graduate
  - **Highest GPA of class**

## interests

**professional**: general artificial intelligence, bio-realistic neural networks, information retrieval, big data representation, neuroscience, blockchain, quantum computing **personal**: traveling, camping, hiking, percussion, tutoring, dirt biking, mobile app development