

# Gabriel Toban

## Data Science Specialist

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Talented, highly qualified, and driven professional with extensive experience gained in fast moving, dynamic technical and business environments. Highly adaptable with a comprehensive and unique transferable skill set that can be leveraged by any organization. Expertise in complex research and the use of mathematical tools that can drive cutting edge data science initiatives. Accomplished leader and communicator, skilled in forging strong relationships, analyzing and resolving problems, exceeding stakeholder expectations, and delivering ROI.

### Technical Proficiencies

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- Data Science:** SQL, Python, Sci-Kit Learn, Anaconda, TensorFlow, Keras, R, Weka, PyTorch, SPSS, SAS  
Databricks, Hadoop
- Software Engineering:** C, C++, C#, Visual Studio, SQL Server, XML, REST, JSON, JavaScript, Visual Studio Code, MySQL, Java, PHP, Oracle, SOAP, Azure, Postgre SQL, Amazon, Google
- Scientific Computing:** Matlab, Wavelets, EEGLab, EDF, MPI, GPU, PyWavelets, Matlab DSP, CUDA, TPU

### Professional Experience

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**Sleep Centers of Middle Tennessee, Murfreesboro, IN** February 2020 – Present  
**Business Intelligence & Research Consultant**

Conduct business intelligence work and leverage Power BI and Azure in the design of cutting-edge tools that can support the organization and effective patient treatment. Leading the creation of a maintaining foundational data collection across 8 diverse systems in order to enable more efficient data analytics pipelines, and the deployment of AI networks that will improve all facets of patient administration and treatment. Conceptualized and implemented a bespoke CRM to support sales and referral analysis that aligns with Azure databases and office 365; established process efficiencies and delivered substantial annual savings.

- ◆ Designed a customer patient process analysis; enabled process leaders to more effectively identify critical internal and patient process dropout loop holes and issues and to seal loss making gaps.

**Coast to Coast Innovative Solutions, Nashville, TN** January 2017 – Present  
**Principal Consultant**

Lead routine operations and establish business strategy and goals encompassing IT, information management, finance, marketing, and all software application projects. Provide AI consulting services for both start-up and established SME's across diverse industries and sectors. Liaise with clients and ensure the provision of first-class service and results.

- ◆ Recruited specifically by physician practices to provide expertise and design services for client specific automation tools to enhance workflows; consistently provided innovative solutions that enhanced

processes across claims, billing, practice management, population health, and research and exceeded expectations.

- ◆ Created critical tools that were defined as time critical medical compliance solutions; tools achieved client compliance and realized substantive client savings through process efficiencies and streamlining.

**Middle Tennessee State University, Murfreesboro, TN**

September 2016 – Present

**Data & Technology Leader at the Sleep Research Consortium (Jan 2018 – Present)**

Integral to the successful design, funding and completion of diverse research projects that leveraged Machine Learning, and statistical analysis on secure Linux servers. Collaborating with partners country-wide to reform sleep medicine legislation.

- ◆ Specifically chosen to provide expertise and serve on a high-profile national sleep research project concentrating on therapy effectiveness for Continuous Positive Airway Pressure [CPAP].

**Research Consultant (Jan 2017 – July 2019)**

Tasked with collaborating and forging strong relationships across local business sectors in order to generate poignant research questions and source applicable tools and methodologies capable of effectively responding to research-based questioning.

- ◆ Penned a 5-year research plan that proved critical to the forging of significant University-level sleep research partnerships that directly resulted in the founding of the Sleep Research Consortium.

**Graduate Teaching/ Research Assistant (Sept. 2016 – July 2019)**

Developed detailed high-level courses and curricula across topics including C++ programming, analysis of algorithms, Python, HTML, and Microsoft Office.

- ◆ Leveraged personally designed lessons in the expert teaching of all assigned Ph.D. level programs; received high levels of student approval and excellent feedback from program administration.
- ◆ Integral to a dissertation '*Single Channel EEG Sleep Characterizations Basis for Disease Detection and Sleep Staging*'; effectively used core technologies including TensorFlow, EEGLab, and MATLAB Signal Processing

**Coast to Coast Medical, Nashville, TN**

August 2013 – December 2015

**Senior Manager of Information Technology**

Led and directed all facets of IT processes and operations, as well as multiple simultaneous projects encompassing overall IT, data management, website and software business priorities. Expertly devised automated data extractions over secure networks, inclusive of organizational-specific coding conversions.

- ◆ Applied current software functionality to design and initiate more streamlined workflows for use by allergy departments; new processes adopted by large numbers of physician practices across the US.
- ◆ Designed a highly effective SQL script that slashed required working man hours and a 6-month timeline in 3 hours; reduced client costs, boosted organizational profitability, and realized a \$50K contract.

## Additional Relevant Experience

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The AI Institute, Cambridge, MA | **Professor of Data Science** | 2019 - 2020  
Mathnasium, Murfreesboro, TN | **Math Instructor** | 2016  
Take Care Health, Franklin | TN, **Systems Analyst** | 2013  
Coast to Coast Medical, Nashville | TN, **EMP/EHR Consultant** | 2012 – 2013  
Global Medical Partners, LLC, Wrentham MA | **EHR Implementation Specialist** | 2012 - 2013  
Greenway Medical Technologies, Carrollton, GA | **EHR Implementation Specialist** | 2011 - 2012  
Coast to Coast Medical, Nashville, TN | **HIM Consultant** | 2008 – 2010

## Education & Certifications

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**Ph.D. in Computational Science** | Middle Tennessee State University, Murfreesboro, TN – *Due August 2021*  
**Master of Science in Computer Science** | University of Illinois, Champaign, IL – 2015  
**Bachelor of Science in Mathematics** | University of Tennessee, Knoxville, TN – 2011

**Advanced Deep Learning with Keras in Python** | DataCamp, 2019  
**Big Data & Hadoop online Training** | Tutorialspoint, 2019  
**Data Science: Deep Learning in Python** | Udemy, 2019  
**Deep Learning with Keras in Python** | DataCamp, 2019  
**Deep Learning: Convolutional Neural Nets in Python** | Udemy, 2019  
**Deep Learning: Recurrent Neural Nets in Python** | Udemy, 2019  
**Ensemble Methods in Python** | DataCamp, 2019  
**Intermediate SQL** | DataCamp, 2019  
**Signal Processing Problems** | Udemy, 2019  
**Unsupervised Deep Learning in Python** | Udemy, 2019  
**Modern Deep Learning in Python** | Udemy, 2018  
**Deep Learning Prerequisites: Logic Regression in Python** | Udemy, 2017  
**Deep Learning Prerequisites: Linear Regression in Python** | – Udemy, 2017  
**AJAX Programming** | University of Tennessee, 2014  
**Intermediate C# Certification with .NET** | University of Tennessee, 2012  
**SQL Certification** | University of Tennessee, 2012

## Supplementary Courses & Training

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**Beyond Epochs & Stages: new Concepts & Methods in Sleep State Analysis** | SLEEP, 2019  
**Sleep Neuroanatomy: Historical Studies & Latest Advancements** | SLEEP, 2019