

Tony Dunsworth

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(913) 538-1253
<https://drddatascience.com>

OBJECTIVE

Fifteen years of experience in public safety data; including architecture, engineering, administration, analysis, and data science to your organization. Also an extensive history of successfully administering 911 computer systems, including dispatch, call handling, call system management, and database administration. Passionate about the application of advanced analytics and data science to 911/999/112 centers to improve operational performance, improve telecommunicator experiences, and guide the industry forward..Active participant in the development of standards for NG9-1-1 through the National Emergency Number Association (NENA). An experienced mentor who enjoys assisting colleagues in finding their place in data analytics, data science, and 911 systems administration.

EMPLOYMENT

COMPTIA SME TECHNICAL ADVISORY COMMITTEE MEMBER

2022 - PRESENT

CompTIA

Downers Grove, IL

- Develop and edit objectives and exam questions for the DataSys+ Certification Exam
- Develop and edit objectives and exam questions for the Data+ Certification Exam
- Mentor newer subject matter experts through the exam development process.

DATABASE ADMINISTRATOR II

2014-PRESENT

City of Alexandria

Alexandria, VA

- Administer and maintain more than 20 databases supporting 911 center operations ensuring maximum uptime
- Develop reports and metrics to describe operations for multiple levels of management using SQL, Python, R, and Julia
- Develop staffing models to validate external consultant reports
- Served as interim CAD manager during vacancies.
- Train and mentor CAD managers assuming the role in the center.
- Write and edit software as needed to support operations
- Write ad-hoc reports as required and complete FOIA data queries.
- Trained administrator of multiple public safety software suites.
- Work regionally and nationally to develop interoperability standards to improve operations across the industry

COMPUTER AIDED DISPATCH MANAGER
Johnson County Sheriff's Office

2010 - 2014
Olathe, KS

- Administered several computer systems across multiple networks to ensure maximum uptime for 911 dispatch systems
- Created and analyzed several reports using SQL, R, and Python to evaluate telecommunicator performance and identify data trends.
- Created and maintained the local intranet site for the department
- Created software to support the center
- Created, maintained, and developed courses in an LMS to assist in creating a dispatcher training school.

WEB DEVELOPER
Independence School District

2008 - 2010
Independence, MO

- Developed and deployed web solutions using industry standard practices and solutions
- Administered and developed modules for the district intranet site.
- Maintained Apache and IIS servers
- Created and deployed multiple MySQL databases to support various projects.
- Deployed a new LMS site to support educators and migrated archived courses to the new instance.

EDUCATION

DOCTOR OF PHILOSOPHY - DATA SCIENCE
National University

2021 - 2024
San Diego, CA

- Completed and defended a dissertation entitled: Determinined the Efficacy of Automated Forecasting Models for Primary 9-1-1 Public Safety Answering Points
- Focused studies on the application of data science research on 911 centers
- Dean's List 2022-2024
- Finished with a GPA of 3.97/4.00.

MASTERS OF SCIENCE - DATA ANALYTICS
Western Governors University

2017 - 2021
Salt Lake City, UT

- Completed masters project examining the efficacy of COVID mitigation techniques on 911 center response times.
- Focused studies on advance statistical analysis on 911 center data

- Received certification in the SAS programming language.
- Finished with a GPA of 3.5/4.0

BACHELOR OF SCIENCE - SOFTWARE ENGINEERING

2012 - 2017

Western Governors University

Salt Lake City, UT

- Focused on Java, JavaScript, and Perl programming
- Achieved several industry standard certification while pursuing the degree
- Completed a capstone project developing an inventory control system in Java
- Finished with a GPA of 3.5/4.0

MASTERS OF INFORMATION SYSTEMS

2005 - 2007

University of Phoenix

Kansas City, MO

Graduated with honors with 3.98/4.00 GPA

BACHELOR OF ARTS - LINGUISTICS

1987-1991

University of Kansas

Lawrence, KS

Studied multiple languages, including Russian, French, and Japanese. GPA 2.78/4.00

SKILLS

- Skilled programmer and analyst using R, SAS, Python, and Julia
- Skilled with Quarto for analytical document development
- Skilled in creating time-series forecasts using statistical, machine-learning, and transformer-based generative AI models
- Collaborator on numerous NENA NG911 standards.
- Trained in numerous public safety software suites
- SAS Basic Certification
- Multiple CIW Web Design and Programming Certifications
- Internet programmer using HTML5, CSS3, JavaScript, PHP, .NET, and C#
- Read, Write, and Speak French, Spanish, Japanese, and Russian proficiently
- Software developer in C#, Java, and Python

PROFESSIONAL AFFILIATIONS

- National Emergency Number Association 2010 - Present
- Association of Public Safety Communications Officers 2010 - Present
- Toastmasters 2023 - Present
- Royal Statistical Society 2023 - Present
- International Institute of Forecasting 2024 - Present

EXTERNAL LEADERSHIP ROLES

- NENA EIDO Conveyance Working Group Co-leader 2017 - Present
- NENA EIDO-IDX Concerns Working Group Co-leader 2023 - Present
- NENA 911-988 Interactions Technical Lead 2022 - Present
- Northern Neck Toastmasters - President 2024 - 2025

PRESENTATIONS AND PUBLICATIONS

- PSAP Scheduling - NCT911 Early Adopters Summit November 2022
- EIDO Conveyance Update - NENA Standards and Best Practices January 2023
- 911-988 Interactions - NENA Standards and Best Practices January 2023
- 911 Data Analytics - VA Joint APCO/NENA Summit May 2023
- Exploratory Data Analysis in the PSAP - VA Joint APCO/NENA Summit May 2024
- Data: Not Just a Star Trek Character - NENA National Conference July 2024
- Conveyance of Emergency Incident Data Object Between Next Generation (NG9-1-1) Systems and Application (NENA-STA-2024.1b-2023) - Contributor and co-editor 2023
- NENA Rules for Use of Version Control Repositories (NENA-ADM-012.1-2022) - Contributor 2022
- NG9-1-1 Call Processing Metrics Standard (NENA-STA-019.2-2022) - Contributor 2022
- Determining the Efficacy of Automated Forecasting Models for Primary 9-1-1 Public Safety Answering Points 2024