

# Constant Marks

Fort Worth, TX 76210 | (303) 482-7292 | constant.marks@unt.edu

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## PROFESSIONAL SUMMARY

Constant Marks is in his third year as a Ph.D. student at the University of North Texas. Mr. Marks discovered his passion for data science while working as an environmental engineering consultant and decided to pursue a degree in computer science under the supervision of Dr. Huang. He has focused his course work on machine learning, statistics, and database and is an active research assistant on multiple projects.

## EDUCATION

University of North Texas | Denton, Texas  
**Computer Science**

GPA: 4.0  
Anticipated Graduation: Dec. 2021

University of California | Berkeley, California  
**Biochemistry**

GPA (Technical/Overall): 3.4/3.1  
August 2000 - May 2004

**Relevant Coursework:** Data Mining, Machine Learning, Artificial Intelligence, Big Data, Programming Languages, Probability, and Statistics

## HIGHLIGHTED PROJECTS

**Office of Naval Research**, Research Assistant

**Summer 2018 – Present**

- Developing semi-supervised machine learning algorithms for a classification problem applied to streams of networked device sensor data and network packet information.
- Creating data processing and feature extraction pipelines to handle the inherently asynchronous data collection routines.
- Building a suite of real-time feedback and control tools for creating and visualizing inferred map layers from noisy and disparate data streams.

**Resolving the Gap between Satellite and Ground Based Remote Sensing**, Research Assistant

**August 2017 - Present**

- Leading and promoting citizen science workshops to establish a network of low cost IoT air quality sensors.
- Synthesizing the data collected from the citizen science network, EPA and EU ground-based monitoring sites, and US and European satellites to improve the local accuracy of small particulate concentration models.

## RELEVANT SKILLS

**Programming Languages:** Python, MATLAB, Prolog, Haskell, Bash, SQL

**Software:** Jupyter, Tableau, MS Office, VMware, AWS, ArcGIS Pro, QGIS, Google Maps API

## EXPERIENCE

**University of North Texas** | Research Assistant

**July 2018 – Present**

- Developing semi-supervised machine learning algorithms with a focus on distributed learning applications.
- Integrating machine learning models into android mobile platforms.

**University of North Texas** | Teaching Assistant

**August 2018 – Present**

- Teaching the fundamentals of programming to young engineers.

**Geosyntec Consultants** | Project Scientist

**July 2014 – July 2017**

- Manipulated and interpreted large and complex data sets, including: plant process, site excavation, CEM, and meteorology data.
- Developed novel SO<sub>3</sub> measurement and control strategies and laser based elemental analysis measurement techniques.

**Element 1 Engineering** | Senior Scientist

**September 2012 – July 2014**

- Supported the design, construction, and operation of bench, pilot, and full scale research projects.
- Extensive instrumentation programming and control experience working with a variety of continuous emission monitors and automated industrial processes.