

# Colton L. Kinstley

APPLIED MATHEMATICIAN · DATA SCIENTIST

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## Skills

### Programming & Technical

PYTHON, MATLAB, UNIX SHELL

- A deep understanding of the fundamental theories underlying modern applied mathematics and statistics.
- Ten years using python at the scientific/personal scripting level.
- Experience producing statistical models and predictions using neural networks and traditional data analysis with TensorFlow and pandas.
- Experience with the numerical mathematics and algorithms surrounding linear systems and their implementations using MATLAB.
- Six years using and scripting Zsh & Bash. I have written a number of small shell scripts for personal use. I use git for version control and edit files in Vim.

### Communication

I have delivered presentations to audiences of 6 to 60 people and corresponded via email with various groups over a similar size range. I can produce technical writing with specialized symbols using the  $\text{\LaTeX}$  markup language and design descriptive charts and graphs with the matplotlib python package and Wolfram Mathematica.

## Experience

### University of Houston Dept. of Mathematics

*Houston, Texas USA*

INSTRUCTIONAL ASSISTANT

*Sept. 2016 - Jan. 2018*

- Developed and presented 1 hour lectures for a Calculus recitation of 60 students 3 times weekly.
- Evaluated and provided feedback to students in their performance on written assignments, MATLAB code and exams in Calculus, Linear Algebra and Discrete Mathematics.
- Constructed written reports for each graded assignment and exam detailing the method by which credit was attributed and the most common errors or areas that needed improvement.
- Responded to inquiries of students regarding the correctness of their solutions and provided feedback on how responses could be made more accurate.

### Austin Community College

*Austin, Texas USA*

SENIOR SUPPLEMENTAL INSTRUCTION LEADER; MATHEMATICS, PHYSICS, ALEKS TUTOR; BRIDGE TEACHING ASSISTANT

*Jan. 2014 - Dec. 2015*

- Lead group sessions with a focus on metacognition and developing effective learning strategies such as identifying valuable metrics by which to monitor progress.
- Developed lesson plans covering material in the lecture portion of the course focused on active learning and group problem solving activities.
- Tutored elementary, intermediate and college algebra; trigonometry; precalculus; calculus 1, 2 and 3; ordinary differential equations; linear algebra; discrete mathematics; general and engineering physics.
- ALEKS is an adaptive, artificially-intelligent learning system that provides students with an individualized learning experience.
- Provided individual tutoring to over 100 students at any given time in the ALEKS program, each potentially at a unique stage in their progress.
- Supported an intensive course in basic mathematics intended to rapidly bring returning students to TSI completion in eight 4 hour classroom meetings with a mix of lecture, group practice and individual study.

### Private Tutor

*Houston & Austin, Texas USA*

MATHEMATICS, STANDARDIZED TESTING (GRE, SAT)

*Sept. 2014 - Present*

- Provide tailored one-on-one tutelage in mathematics to students over a variety of age ranges and skill levels.
- Create marketing materials for my services and manage all aspects of tutoring sessions including scheduling, location, etc.

### Master Burglar Alarm Co.

*Austin, Texas USA*

ALARM MONITOR AND TECHNICAL SUPPORT AGENT

*Feb. 2010 - Nov. 2015*

- Acted as the primary point of contact for property representatives, law enforcement and fire response in the event of alarm activation in over 2,000 residential and commercial buildings across Texas.
- Trained new team members in the responsibilities, security information management system and procedures of the alarm department.

## Education

### University of Houston

*Houston, Texas USA*

MASTER OF SCIENCE IN APPLIED MATHEMATICS

*Jan. 2016 - Dec. 2017*

### University of Texas at Arlington

*Arlington, Texas USA*

BACHELOR OF BUSINESS ADMINISTRATION

*Jun. 2004 - May. 2008*