

Colton L. Kinstley

APPLIED MATHEMATICIAN

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Skills

Programming & Technical

PYTHON, MATLAB, UNIX SHELL

- A deep understanding of the foundational theories underlying modern applied mathematics and statistics.
- Six years using python at the scientific/personal scripting level. I have also done small projects in C, C++ and Java.
- Experience producing statistical models and predictions using modern regression techniques and data analysis with **sklearn** and **pandas**.
- Knowledgeable in numerical mathematics and algorithms surrounding linear systems and their implementations using **numpy** and 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 professionally corresponded via email with various groups over a similar size range. I can produce technical writing with specialized symbols using the \LaTeX markup language and design descriptive charts and graphs with the **matplotlib** and **seaborn** python packages.

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