

# Theodore S. Lindsey

## Education

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**MS, Computer Science**, *The University of Kansas*, Lawrence, KS, 3.63.

**Dec 2016**

**MA, Mathematics**, *The University of Kansas*, Lawrence, KS, 3.61.

**May 2014**

**BS, Mathematics**, *Principia College*, Elsah, IL, 3.50.

**Jun 2011**

## Computer tools

**Languages:** Bash, C, C++, CSS, HTML,  $\LaTeX$ , Matlab, Python

**Frameworks/Tools:** Git, Mathematica, RegEx, SQLite, TkInter

## Experience

**Graduate Teaching Assistant**, *The University of Kansas*.

**2011–Present**

Instructor of record for Intro to Programming (C++), Software Engineering lab, Calculus I, among others. Responsible for preparing lecture material, creating homework assignments, lecturing, and grading.

**Software Development**, *Masters Project*.

**2016**

Implemented a rule induction system (IRIM) from publication articles.

**Team Lead**, *Information Retrieval Class Project*.

**Spring 2016**

Designed and built a search engine using the TF-IDF vector space model. Integrated relevance feedback from user into ranking algorithm. Implemented a web crawler to index specific websites.

**Software Development**, *Personal Project*.

**Summer 2015**

Designed, developed, and tested a digital cookbook application in Python and TkInter.

**Team Lead**, *Software Engineering Class Project*.

**Fall 2014**

Team lead for a class project in which we wrote a cookbook application. Responsible for project architecture, scheduling, module integration, and spec authoring.

**Mathematics Awareness Month Volunteer**, *The University of Kansas*.

**2012-2015**

Designed and presented interactive lectures covering various core mathematical concepts for 5th graders. Organized and assisted with competitions and activities for K-12 students to raise math awareness.

## Interests

**Home automation:** Atmel AVR (Arduino)-based automation.

**Prop manufacturing:** Mold-making, casting, fiberglass and resin, sculpture.

**Multicopter UAS:** Building and programming RC quadcopters

## Presentations & Publications

***On the Kalman Filter and Its Variations.*** M.A. thesis defense, The University of Kansas, Lawrence, Kansas. April 18, 2014.

***Ink-constrained halftoning with applications to QR codes.*** Mathematical Modeling in Industry XVII, Minneapolis, Minnesota. August 16, 2013.

***Orthogonality Throughout Mathematics.*** MAA-MOMATYC contributed talk, Columbia College of Missouri, Columbia, Missouri. April 2, 2011.

## Honors & Awards

Finalist for the *Florence Black Teaching Award* (The University of Kansas)

**2013–2014**

National Science Foundation Graduate Research Assistant (DMS-1108884)

**2013**

Robert and Mary Keely Mathematics Award (Principia College)

**2011**