

# Emilie Menard Barnard

COMPUTER SCIENCE EDUCATOR

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## Education

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### M.S. in Computer Science

*Santa Barbara, California*

UNIVERSITY OF CALIFORNIA, SANTA BARBARA  
COLLEGE OF ENGINEERING

*June 2016  
4.0 GPA*

### B.S. in Computer Science

with Honors Program Designation

UNIVERSITY OF CALIFORNIA, SANTA BARBARA  
COLLEGE OF ENGINEERING

*June 2013*

### B.A. in Mathematics

with Honors

UNIVERSITY OF CALIFORNIA, SANTA BARBARA  
COLLEGE OF LETTERS & SCIENCE

*June 2013*

## Experience

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### Adjunct Professor

*Los Altos Hills, California*

FOOTHILL COMPUTER SCIENCE DEPARTMENT  
FOOTHILL DE-ANZA COMMUNITY COLLEGE DISTRICT

*Aug 2017 - Present*

- Organize and teach introductory computer science courses
  - Prepare and host class meetings
  - Foster a learning environment that respects the diverse student population
  - Assess students' academic performance
  - Host office hours
- Participate in mentorship activities

### Instructor

*Sunnyvale, California*

GIRLS WHO CODE

*May 2017 - Aug 2017*

- Led the GWC summer program classroom at Amazon Lab126
  - Led instruction and maintained an engaging and accessible classroom environment for a diverse group of 20 high school girls
  - Managed and assessed students' progress in and proficiency of hard and soft computer science skills
  - Managed Teaching Assistants

### Lecturer in Computer Science

*Santa Barbara, California*

COMPUTER SCIENCE DEPARTMENT  
UNIVERSITY OF CALIFORNIA, SANTA BARBARA

*June 2016 - Aug. 2016*

- Taught two lectures of UCSB's undergraduate introductory computer science course during summer sessions
  - Prepared and hosted lectures
  - Organized Teaching Assistants
  - Wrote and provided oversight in grading all assignments and exams
  - Hosted office hours

### Lead Teaching Assistant for *Introduction to Computer Science* Course

*Santa Barbara, California*

COMPUTER SCIENCE DEPARTMENT  
UNIVERSITY OF CALIFORNIA, SANTA BARBARA

*Oct. 2014 - June 2016*

- Assisted various professors in teaching UCSB's undergraduate introductory computer science course
- Led weekly programming labs
- Hosted twice-weekly office hours
- Organized responsibilities of other teaching assistants of the course
- Prepared and hosted lectures on occasion

## Computer Science and Mathematics Instructor

Santa Barbara, California

CAMPUS LEARNING ASSISTANCE SERVICES (CLAS)  
UNIVERSITY OF CALIFORNIA, SANTA BARBARA

Sept. 2013 - June 2014

- Organized and taught twice-weekly tutorial groups for students enrolled in *Calculus for Social & Life Sciences*
- Privately tutored students in mathematics and computer science courses

## Reader

Santa Barbara, California

MATHEMATICS DEPARTMENT  
UNIVERSITY OF CALIFORNIA, SANTA BARBARA

Sept. 2012 - June 2013

- Graded biweekly homework assignments for *Non-Euclidean Geometry* and discrete mathematics courses

## Organizations

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### Undergraduate Curriculum Committee Member

Santa Barbara, CA

COMPUTER SCIENCE DEPARTMENT  
UNIVERSITY OF CALIFORNIA, SANTA BARBARA

Oct. 2014 - June 2016

- Met bi-weekly with faculty and staff members of the committee
- Monitored and proposed changes to the undergraduate curriculum
- Developed policies for ensuring a healthy level of undergraduate enrollment in the department

### Graduate Student Cabinet Member

Santa Barbara, CA

COMPUTER SCIENCE DEPARTMENT  
UNIVERSITY OF CALIFORNIA, SANTA BARBARA

Oct. 2015 - June 2016

- Nominated by faculty to represent graduate students in the department
- Met montly with the chair and other student cabinet members to discuss departmental changes

## Honors, Awards, & Nominations

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### Distinguished Teaching Assistant

Santa Barbara, California

COMPUTER SCIENCE DEPARTMENT  
UNIVERSITY OF CALIFORNIA, SANTA BARBARA

June 2015

Received for my work during the 2014-2015 school year. The purpose of the award is to “recognize those teaching assistants who went above and beyond to support our students and faculty” and “demonstrated this excellence again and again.”

### Graduate Student Association Excellence in Teaching Award (Nominee)

Santa Barbara, California

UNIVERSITY OF CALIFORNIA, SANTA BARBARA

2015, 2016

This campus-wide award recognizes the dedication of graduate students who have shown excellence and have gone above and beyond in their roles as teachers.

### Women in Science and Technology Award Winner

Nationwide

VISIONARY INTEGRATION PROFESSIONALS

July 2012

The nationwide competition supports women seeking a career in computer science, information technology, or other applicable fields.

## Projects

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### Cellular Automata Encryption Generator

[HTTP://WWW.EMILIEBARNARD.COM/PROJECTS/CA.HTML](http://www.emiliebarnard.com/projects/ca.html)

This cellular automata encryption generator allows users to learn about CA encryption techniques in a visual manner. It allows the user to input any CA rule (mod 256) and set output preferences.

### Awesome Library

[WWW.PCONRAD.GITHUB.IO/AWESOMEPRELIMS/](http://www.pconrad.github.io/awesomeprelims/)

The idea of this discrete math library is to allow students to self-study various problems related to discrete math, such as set operations and relation classification. I created a 64-bit JavaScript number library which was used to automate question generation.