

Sambhav Sunkerneni

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EDUCATION

University of California, Berkeley

2017-2021

B.A. Computer Science

Major GPA: 4.00, Overall GPA: 3.85

Relevant Coursework: *Structure & Interpretation of Computer Programs (SICP)* [A+, Top 5%],
Data Structures, Discrete Math & Probability Theory, Linear Algebra & Differential Equations

PROJECTS

Pictacular – *Mosaic Maker* (Full algorithmic explanation at <https://github.com/SambhavS/Pictacular>)

- Efficient, high-accuracy mosaic maker. 7,000 times faster than naive solution
- Algorithmic optimization gives instant image lookup using precomputed mapping of 4000+ color subcubes to closest image in RGB vector space.
- Technologies used: Flask, Python, Pillow, JavaScript/AJAX, HTML/CSS

CS61a (SICP) Grade Calculator

- Scrapes Okpy grade portal's HTML, extracts grade data and computes user grade statistics
- Used extensively by fellow CS61a students; 200+ users.

PickIt – *Bookmarked Image Manager*

- PennApps team project to collect, save, tag and sort bookmarked pictures from the web.
- Developed server side REST API to enter and extract images from database and manage tags.
- Technologies used: Node.js, Express, MongoDB, Mongoose, AWS S3

Cardy – *Postcard Sender*

- Desktop email client that allows users to email online postcards
- Detects user location, filters nearby Flickr photographs, and offers selection of scenic photographs taken within 10 miles of user
- Technologies used: Python, Pillow, Tkinter & Google Maps, Flickr, Sendgrid APIs

WORK EXPERIENCE

Evergreen Engineering & CS Society — *Founder, President*

Aug 2015 - May 2017

- Organized operations, created content, and led team for registered nonprofit
- Held 30+ Python workshops & classes for students at multiple local libraries

AWARDS & SKILLS

Cal Alumni Association Leadership Award	2017
Intel's Andy Grove Scholarship	2017
AIME Qualifier (Top 1.5% out of 200,000 Students in National Math Contest)	2016, 2017
Stanford ProCo, 4th Place Speed Round (50+ Teams)	2016
Harker Programming Invitational, 4th Place (30+ Teams)	2016
USA Computing Olympiad, Silver Contestant	2015

Languages: Python, JavaScript, Node.js, Java, HTML/CSS, SQL (SQLite), Scheme

Frameworks & Tools: Flask, Express, MongoDB, Django, jQuery/AJAX, Git, UNIX