Anders Lewis

(970)389-0103
1715 Spruce St, Berkeley CA 94709
anderslewis@berkeley.edu
anderslew.us

Education:

- BA in Computer Science, minor in Music.
- Expected graduation in May 2018
- 3.395 GPA
- **Coursework:**
  - In progress: Operating Systems, Probability and Random Processes, Robotics
  - Completed: Artificial Intelligence, Algorithms, Computer Security, Machine Structures, Data Structures, Discrete Math and Probability Theory, Linear Algebra, Calculus, Classical Physics and General Chemistry

Experience:

Synack: Summer 2016

Software Development Intern

- Implemented a brokering service for Hydra, Synack's main automated threat discovery service.
- Worked on a small team of primarily full-time employees implementing Python backend and a RESTful Flask web API.
- Benchmarked in python and successfully identified and fully fixed several major bottlenecks in Synack's core system.

Independent Computer Science Research: Spring 2015-Fall 2015

- Investigated an application of natural language processing on compression in an independent research project supervised by Professor John Denero.
- Wrote a testing enviroment in Python to benchmark an experimental compression algorithm.
- Implemented a cached Huffman-encoded compression algorithm using kenlm.

Berke1337: Fall 2016-Present

Competition team member

- Club dedicated to training for and competing regional and national security competitions, specifically the WRCCDC and NCCDC.
- Primary focus is on securing arbitrarily out-of-date systems in a high pressure environment.
- Other activities include corporate tech talks and CTFs.

Berkeley EECS instructional: Spring 2016

Reader/Tutor

- Paid position tutoring weekly student sections focused on assigned homeworks for CS 70, Berkeley's required Discrete Math and probability course for Computer Science majors.
- Topics included discrete math, graph theory, cryptography, and probability theory.

Computer Science Mentors (CSM): Fall 2015-Spring 2016

Senior Mentor

- Taught an adjunct introductory computer science course for UC Berkeley (CS61A).
- Topics included Python, recursion, Functional programming in Scheme, SQL, and some basic data structures.
- Led weekly discussion based teaching sections with students and taught small group sections on teaching to other mentors.

Projects:

Github: Open Source Window manager

- Patched features and contributed scripts to a set of completely open source C-based XCB window manipulation utilities.
- Project is part of an international movement towards complete control over a unix desktop; the idea is to fully modularize a window manager such that every feature choice is left for the user to customize.
- Wrote a window manager with workspaces, vim-like keybindings, and VU meter borders in POSIX-compliant shell script.

Github: Workspace customization tools

- Suite of modular scripts aimed at desktop customization from CLI.
- A key script is a customized regressive k-nearest neighbor color overlayer designed to make a color scheme match up with a wallpaper.

Skills:

Technical:

- Comfortable with Python, Lisp, Java, C, LaTeX, sh, vim, and SQL
- Proficient with HTML/CSS, javascript, git, fragment shaders, Tensorflow, Docker, and debugging/reverse engineering

Extracurriculars and Interests:

- **Berkeley Carillon Guild: Spring 2014-Present**
  - Taught weekly lessons on basic carillon (belltower) form and musicianship to beginning carillon students.
  - An end-of-semester recital is held wherein students played project pieces on Sather Tower.
- Also involved in Cal Climbing and Brazillian Jiu Jitsu at Berkeley
- Interested in Computer Security, robotics, graphics, Music composition (manual and algorithmic), and machine learning.