

<http://lewincary.com>  
caryl@stanford.edu  
M (650) 669 7532

# Lewin Cary

## EDUCATION

### Stanford University, Class of '18

Palo Alto, United States

B.S. Computer Science – Artificial Intelligence

### Cranbrook School, Class of '13

Sydney, Australia

Valedictorian 2009, 2011 – Winner of two academic scholarships

## TECHNICAL SKILLS

Software	C/C++, Java, JavaScript
WebDev	HTML/CSS  MEAN: Mongo, Express, Angular, Node  LAMP: Linux, Apache, MySQL, PHP
Frameworks	Node.js, Laravel
Audio	Chuck
Visualization	Processing
VCS	Mercurial, Git

## OTHER SKILLS

- Audio production & sound synthesis
- Conversational French: French exchange immersion
- Certified barista
- Journalism: co-founder of school magazine
- First aid: cardio resuscitation re. viva

## INTERESTS

- Produced experimental electronic music for ~6 years
- Traveling: backpacked 4 months around Europe
- Surfing; diving; swimming; snowboarding
- Sailing: holds boat license
- Hiking/camping: Gold Duke of Edinburgh Award

## EXPERIENCE

### Founder & Software Engineer at SafeSwap

<https://safeswap.io>

- Founded and built the web-based company that facilitates the online exchange of electronic valuables in peer-to-peer transactions

### Software Engineer Intern at Spacehop

<https://spacehop.com>

- Built and deployed the company's new web application using Laravel framework that saw reduced loading times due to smarter database lookup
- Built an internal analytics tool with PHP/MySQL to identify consumer trends
- Built dynamic booking system in JavaScript, facilitating a 40% rise in sales

### Software QA Engineer Intern at Naim Audio

<https://www.naimaudio.com>

- Developed test scripts and procedures to ensure specification compliance in R&D embedded systems projects

### Project Manager Intern at Appian Group

<https://appianguroup.com.au>

- Configured and maintained web-based contract and document management system while interfacing between clients and internal management

### Audio Software Dev at Centre for Research in Music and Acoustics

<https://ccrma.stanford.edu>

- Coder in Ge Wang's Laptop Orchestra, creating networked systems over OSC
- Maintaining and troubleshooting CCRMA studios, including preparation and updating of user manuals and introductory tutorials

## PROJECTS

more at <http://lewincary.com>

### Heap Allocator in C

Dynamic memory allocator implemented in C utilizing a doubly-linked segregated free list with coalescing strategy:

- Throughput: 105% (25% > 12000k req/sec benchmark)
- Utilization: 65% (benchmark)

### Memory Leak Detector in C

Heap leak detection through dissection of ELF object files. Intercepts calls to malloc/realloc/free to track in-use blocks and provide function backtrace capabilities.

### Photo Sharing WebApp (Mongo / Express / Angular / Node)

Single page application based on Facebook where users can register, login, upload photos, comment and view recent activity. Implemented with a MEAN stack.

### Simultaneous Visual and Sound Synthesis (Chuck / Processing / OSC)

Audio and visual synthesis from a virtual grid constructed in Chuck and Processing. A user plugs in a game controller and controls the location of a cursor in the grid. As the location changes, different sounds and visual patterns are synthesized.