

# Benjamin Darnell

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## WORK EXPERIENCE

### Undergraduate Teaching Assistant

UCSB Department of Computer Science

📅 Jan. 2020—Dec. 2021 📍 Santa Barbara, CA

- Provided one-on-one support for students in upper-division Data Structures and Algorithms classes, led review sessions, graded assignments.

### Software Engineering Intern

Jobvite, Inc.

📅 June—Sept. 2019 📍 San Mateo, CA

- Built a framework for Automation testing of Jobvite's Candidate Self-Scheduling web-interface in Java using the Selenium webdriver.
- Automated a suite of QA test cases.

### Software Engineering Intern

Baobab Studios

📅 May—Sept. 2018 📍 Redwood Shores, CA

- Performed QA testing on scenes in *Crow: the Legend*, a Unity VR experience.
- Wrote scripts to automate audio/video conversion with ffmpeg to support mobile platforms.

## RESEARCH EXPERIENCE

### Graduate Researcher

UIUC Dept. of Computer Science

📅 Aug. 2022—Present 📍 Urbana, IL

- Developing tools to assist domain experts in designing domain-specific languages, using techniques from program synthesis and AutoML (Supervised by Dr. Vikram Adve)

### Research Assistant

UCSB Programming Languages Lab

📅 June 2020—March 2022 📍 Santa Barbara, CA

- Created [Sootty](#), an open-source data visualization tool for hardware simulations. Collaborated with multiple students to add features and improve design.
- Contributed to a paper using program synthesis for CPU development. Designed a pipelined RISC-V core and extended a hardware description language to support holes for sketch-based program synthesis.
- Developed automatic practice-problem generation tools for CS education tools. Presented research poster at [RACA-CON '20](#).

## EDUCATION

### University of Illinois at Urbana-Champaign

Ph.D. Student, Computer Science

📅 2022—Expected 2027

### University of California, Santa Barbara

[College of Creative Studies](#)

B.S. with Highest Honors, Computing

📅 2018—2022

- UC Regents Scholar (*Top 1% of admitted students.*)
- CCS Summer Undergraduate Research Fellow

### Technion, Israel Institute of Technology

International Student Exchange Program

📅 March—Aug. 2022

## TECHNICAL SKILLS

**Programming Languages:** Python, C/C++, Java, HTML/CSS, Javascript, Ruby, OCaml.

**Tools:** Git, Docker, LaTeX, Unix Shell.

## LEADERSHIP AND SERVICE

### Mentor (Google Summer of Code)

Free and Open Source Silicon Foundation

📅 Summer 2022

- Supervised two college students in developing an open-source waveform viewer I created during the previous year.

### Logistics Coordinator, [SB Hacks](#)

📅 2020, 2021 Santa Barbara, CA

- Led the logistics team for UCSB's inclusive student-run hackathon.
- Managed budget, venue, catering, website, hacker admission and organization recruitment.

### Mentor, [Womxn/Hacks](#)

📅 2019, 2020 Santa Barbara, CA

- Assisted hackathon participants with app development projects at an all-female-identifying hackathon.