



# Norman Karr

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## EDUCATION

### University of California, Berkeley

*Bachelors of Arts: Computer Science, Physics*

- GPA: 3.55, Major GPA: 3.64
- Relevant Courses: Intro to Computer Vision and Computational Photography, Designing and Understanding Deep Neural Networks, Introduction to Machine Learning

Berkeley, CA  
8/2018–6/2022

## PROFESSIONAL EXPERIENCE

### Berkeley Lab Physics Division

*Undergraduate Researcher*

- Independent researcher in Benjamin Nachman's lab studying the application of machine learning in particle physics
- Experimented with multiple one-class classification techniques for anomaly detection
- Designed mixture density networks to interpolate and generate LHC collider data

Berkeley, CA  
1/2021–Present

### Medtronic

*Software R&D Intern*

- Developed algorithms that operate on the next-generation continuous glucose monitors
- Refactored pre-existing programs to improve computational efficiency and memory usage
- Learned a new form of development known as model-based development

Northridge, CA  
Summer 2021

### EECS Department Course Staff

*Reader/Tutor*

- Part-time Reader/Tutor for CS 170: Efficient Algorithms and Intractable Problems
- Hosted weekly office hours and aided in weekly discussion sections
- Produced supplementary video walkthroughs for students to better understand lecture topics, discussion problems, and previous exams

Berkeley, CA  
8/2020–5/2021

### Medtronic

*Software Test Intern*

- Full-time software test engineer for Medtronic's Diabetes division
- Designed algorithms to test graphical similarity and consistency across different interfaces
- Built script banks to automate functional testing of Bluetooth low energy communication

Northridge, CA  
Summer 2020

### Intellex

*Data Science Intern*

- Learned a new coding language on site to contribute directly to a NLP based classifier
- Designed and deployed two custom feature extractor layers within the classifier
- Applied NLP models to create specialized word embeddings across the vocabulary of law
- Produced complex and efficient data analysis algorithms large datasets and corpuses

Singapore  
Summer 2019

## VOLUNTEERING EXPERIENCE

- **Academic Intern** at University of California, Berkeley

Fall 2020

*CS 61C: Great Ideas in Computer Architecture*

- **Academic Intern** at University of California, Berkeley

Fall 2019

*CS 61B: Data Structures and Algorithms*

## HARD SKILLS

- **Coding Languages:** Python, Java, Matlab, C
- **Software Development:** Version Control, Neural Network Architecture, Software Lifecycle
- **Tools:** PyTorch, Sci-Kit Learn, SQL, AWS EC2, React-Native

## SOFT SKILLS

- **Collaboration:** Remote and in-person
- **Adaptable:** Never afraid to iterate
- **Independent**
- **Creative Problem Solving**
- **Research and Analysis**

## LANGUAGES

- **English:** Native
- **Chinese:**  
Speaking: Fluent  
Reading/Writing: Intermediate