

# Kenneth DeBacker

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## EDUCATION

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### The University of Chicago

Graduated June 2018

*Bachelor of Science with General Honors, Chemistry*

GPA: 3.61

### Rice University (Through Coursera)

Completed October 2018

*Specializations: "Introduction to Scripting in Python", "Fundamentals of Computing"*

**Coursework/Independent Learning:** Data structures; Algorithms; Object-oriented programming; Excel; Graduate level chemistry studies at The University of Chicago.

## TECHNICAL SKILLS

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- Fluent: Python, Kivy Language (KV)
- Intermediate: C++, Bash
- Beginner: HTML, CSS, MS Excel, MATLAB

## WORK EXPERIENCE

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### Snyder Lab

Chicago, IL

*Undergraduate Researcher*

February 2017 – May 2018

- Designed and improved synthetic routes for constructing natural products and testing reaction methodology targeted by the group, supported with funding awarded by Jeff Metcalf Internship.
- Collected and interpreted data from a host of sources/instruments (SciFinder, Reaxys, Mass Spectrometer, Column Chromatography, and NMR Machine).
- Author on published paper, author on another manuscript submitted to Nature for review (recently sent out to reviewers for peer review).

### Michigan Technological Research Institute

Ann Arbor, MI

*Research Intern*

June 2016 – September 2016

- Interpreted relationship between brain EEG data and environmental noise to demonstrate the effect of sample sleeping environments on newborns' brain activity.
- Interpreted sonar data containing environmental and test noise; used machine learning techniques to develop a sensor prototype for detecting environmental anomalies.

### Ridenour Landscaping

Ann Arbor/Saline, MI

*Employee*

June 2014 – September 2015 (Summers)

## INDEPENDENT PROJECTS

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### Chem-Cat

- Python-based Android/iOS application for learning organic chemistry built using Kivy. The app is available on both Google Play (<https://bit.ly/2G7jLTV>) and the App Store (<https://apple.co/2GjhkwL>).

## LEADERSHIP EXPERIENCE

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### University of Chicago Ultimate Frisbee

Chicago, IL

*Captain*

September 2015 – June 2018 (Captain Junior/Senior Year)

- Helped team to highest finishes at D-I Sectionals (1<sup>st</sup>) and D-I Regionals (2<sup>nd</sup>) in program history.
- Organized and led workouts as well as team practice.

### Skyline High School Ultimate Frisbee

Ann Arbor, MI

*Coach*

October 2018 - Present

## HONORS AND ACTIVITIES

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**Honors:** Top 3% Project Euler Problems Completed; HackerRank Badges: Problem Solving, Python, C++ (all gold); The University of Chicago Dean's List

**Activities:** Food Gatherers (Volunteer), University of Chicago Undergraduate Chemistry Society "Benzene" (Member), Club Frisbee Teams (Ann Arbor Spoiler, Chicago Beachfront Property, Ann Arbor Four)