

# Kendrick Isaiah Key

## Current Address

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## Contact Information

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## EDUCATION

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### Cabrini University

Major: Biology | Microbiology & Biotechnology  
Honors: *President's List* | *National Society of Leadership & Success*

In progress

### The Pennsylvania State University

Major: Biomedical Engineering  
Honors: *Millennium Scholars Program*

July 2020 - June 2022

### George Washington Carver High School of Engineering and Science

June 2020

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## RESEARCH, TECHNOLOGY & INDUSTRY EXPERIENCE

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### Pharmacy Technician

- Dispenses pharmaceuticals for patients

December 2022 - Present

### Air National Guard

- Airman First Class, Cyber Defense Operations

November 2022 - Present

### Horizontal Gene Transfer Research

- Used Bioinformatics analysis to study evolutionary relationships between bacteriophages and bacteria
- Working on a manuscript towards publication of results

September 2022 - Present

### DeNovo DNA

- Optimized PCR protocols for Protein Library Synthesis
- Designed plasmids to be used for Protein Library Synthesis

May 2022 - August 2022

### Synthetic Biology Research at the Salis Lab

- Designed 3000+ promoters for an assay to build upon a predictive promoter calculator
- Engineered *E. coli* to express synthetic promoters
- Engineered *Vibrio natriegens* for buoyancy driven transport of iron to promote carbon sequestration

April 2021 - August 2022

### Interdisciplinary and Quantitative Biology REU

- Analyzed differential gene expression of proteins in regenerating *Holothuria glaberrima* digestive tissue
- Presented on an R program I wrote to simulate regulatory interactions for a Hackathon
- Presented with a group on analysis of COVID-19 data regarding mortality rates in South America

June 2021 - July 2021

### Intern at Opertech Bio

- Supported company in developing an innovative, pharmacology-based method for quantifying taste by preparing and performing assays
- Conducted and administered taste trials to dozens of volunteers. As a laboratory assistant, I personally collected over 1,100 new data points to be analyzed and used for further research at the company

June 2019 - August 2019

### UPenn Biomedical Research Academy

- Received over 30 lectures from biomedical scientists over the course of 4 weeks
- Performed several laboratory experiments to hone fundamental techniques such as PCR and ELISA
- Presented a paper about Alzheimers' research in transgenic mice to over 100 students and faculty

July 2019 - August 2019

### Junior Science and Humanities Symposium

- Wrote a program in R to screen DNA sequences for potential methylation sites by searching for CpG Islands within the human genome
- Analyzed over 167,000 base pairs of DNA across 3 tumor suppressor genes and identified dozens of regions where methylation could lead to cancer growth
- Presented this research to an audience and panel of scientists at the Regional Junior Science and Humanities Symposium at Temple University's College of Science and Technology

December 2018 - March 2019

### Lepidoptera Research

- Worked as a technician in a lab investigating evolutionary relationships between species of green emerald moths
- Discovered a new species of the nemoria genus
- Presented research findings to a group of faculty and members of the public

September 2016 - June 2017