Benjamin Cooper

linkedin.com/in/cooper-benjamin222 ▪ Cooper.Benjamin222@gmail.com

EDUCATION:

Syracuse University, College of Engineering and Computer Science **May 2020**
Bachelor of Science Bioengineering, Minors: Electrical Engineering & Probability and Statistics

University of California Los Angeles, David Geffen School of Medicine **May 2025**
Master of Science Data Science in Biomedicine

SUMMARY:

Accomplished Data Scientist and Analyst with a strong background in algorithm development, predictive modeling, and data visualization. Currently pursuing a part-time M.S. in Data Science in Biomedicine from UCLA. Experienced in digital signal processing, machine learning, and quality improvement with practical expertise in Python, SQL, and AWS. Proven track record in healthcare data analysis and research, contributing to significant hospital initiatives and product development in wearable technology. Demonstrated ability to lead projects, conduct experiments, and drive data-driven decision-making. Skilled in grant writing, statistical process control, and advanced data analysis techniques.

CONTINUING EDUCATION COURSES:

Syracuse University
Data Science in Biomedical & Chemical Engineering
Mobile Health Invention Workshop

Northeastern University
Fundamentals of Artificial Intelligence
Applications of Artificial Intelligence
Artificial Intelligence System Technologies

SKILLS:

Algorithm Development	SQL
Predictive Modeling	Python
Data Visualization	PyTorch
Machine Learning	AWS
Digital Signal Processing	Microsoft Office
Statistical Process Control	BI Dashboards
Quality Improvement	3D CAD/Printing
Grant Writing	Lean Six Sigma

EXPERIENCE:

Healthcare Data Analyst, *Boston Children's Hospital,* Boston, Massachusetts **Oct 2023 – Present**

- Craft reports and visualizations, enabling data-driven decision-making across all hospital departments
- Help drive hospital-wide initiatives promoting inclusivity and addressing health disparities
- Facilitate completion of state-run Medicaid program to capture > $25 million for the hospital
- Lead analyst on the US News & World Report Pediatric Hospital Survey submission team
- Support Clinical Pathway's transition from GA4 to Adobe Analytics, creating dashboards to track website metrics

Research Assistant, *University of Wolverhampton,* Stoke-on-Trent, UK **Feb 2023 – Jul 2024**

- Analysis of six-minute walk test, sit-to-stand test, and range of motion assessment classification algorithms
- Ensured data access and support, adhering to international privacy laws and stakeholder needs
- Facilitated smooth data collection for 34 participants across multiple sessions

Data Scientist, *Cipher Skin,* Denver, Colorado **Sep 2020 – Mar 2023**

- Wrote algorithms to calculate heart rate and $\%SpO_2$ from PPG data (± 5bpm and 3% accuracy respectively)
- Directed > 10 experiments to test product under dynamic conditions and created visualizations and live demos
- Designed data structures and wrote signal processing software for iOS application
- Led > 20 product testing sessions with physical therapists and other external stakeholders
- Developed and submitted > 5 grants to NIH, DoD, and other agencies – awarded and fulfilled a grant with the DoD

Capstone Design, *Syracuse University,* Syracuse, NY **Aug 2019 – May 2020**

- Designed a tactile and auditory stimulation device as an EEG accessory for longitudinal study of ASD
- Communicated with client to deliver a feasibly lightweight and portable product which met all design criteria

Research Assistant, *Nanobioelectronic Laboratory,* Be'er Sheva, Israel **Jun 2019 - Aug 2019**

- Designed and programmed miniature potentiostat to be implemented with a microelectrode array
- Coated microelectrode array with redox-reactive materials using chronopotentiometry and cyclic voltammetry
- Documented and ran interference study of Clozapine and Olanzapine with human serum

R&D Bioengineering Intern, *Burpee Med-Systems,* Eatontown, NJ **Dec 2017 - Feb 2018**

- Conducted friction testing on proprietary heart catheter and presented findings to stakeholders
- Documented experimental procedures and protocols to ensure reproducibility