Harlan Phillips

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EDUCATION

University of California, Berkeley – Berkeley, CA May 2027
Bachelor of Science in Electrical Engineering and Computer Science
Relevant coursework: OOP & Data Structures, Computer Architecture, Discrete Structures, Linear Algebra
Bakersfield College – Bakersfield, CA May 2024
Associate of Science in Computer Science, Mathematics, and Physics GPA: 4.0
Honors & Awards: OSHER Scholar (~1%), Phi Theta Kappa Honor Society, Dean's List

SKILLS & CERTIFICATIONS

- **Skills**: Python (Streamlit, Pytorch, Sklearn, Pandas, Numpy, Matplotlib), C++, C, Java, SQL, Git, Jupyter, Kotlin
- **Certifications**: CodePath Android Development (02/2024 - 05/2024), Harvard's Machine Learning/Data Science with Python (08/2023 - 11/2023), SANS Foundations: Computers, Technology, & Security (06/2022 - 10/2022)

EXPERIENCE

Cornell University - Astrophysics Researcher | Ithaca, NY June 2024 - Present
- Developing a web application to reduce transient classification time by over 60%, as measured by increased efficiency, by integrating Flask, SQL, and the fritz.science API
- Deployed the application using Amazon AWS, achieving 99.9% uptime, and leveraging cloud computing, scalability, and security features to ensure robust and reliable performance
- Enhancing the classification accuracy and automation, as demonstrated by the successful implementation of machine learning algorithms, by creating tools for easy classification of thousands of unclassified transients

NASA Ames Research Center - Intern | Mountain View, CA June 2023 – May 2024
- Developed an innovative LLM tool that extracts methodology details and generates graphical representations from experimental studies input using Python (Streamlit, Pandas, and Langchain), reducing the time required to develop graphical representations from 2 hours to just 2 minutes
- Streamlined experimental analysis for scientists by over 82%, simplifying a 250-day research process to 40 days
- Enhanced scientific data analysis by developing intricate visualizations using Python (Matplotlib, Seaborn, Pandas), aiding researchers in experimental protocol evaluation
- Designed custom automation scripts using Python (Pandas, Tkinter, Openpyxl) for SLIMS which increased data accuracy by 95%

Bureau of Land Management - Engineering Intern | Bakersfield, CA August 2023 – October 2023
- Increased the accuracy of the counting algorithm from 41% to 99% by redesigning it to optimize magnetic force, time intervals, and input delays, enabling the BLM to optimize resource allocation and achieve significant cost savings
- Guaranteed precise visitor data collection by expertly calibrating Trafx infrared and magnetic counter technology, ensuring data accuracy for BLM decision-making and improving data reliability by 25%

PROJECTS

Kern Medical System Automation - Backend Lead | GitHub August 2023 - May 2024
- Halved check-in times for Kern Medical classes and boosted user accessibility by developing key functions for a custom app
- Enhanced system functionality and data management by designing an SQL database and integrating Python-based tools for student management and email notifications

Alara - Virtual Personal Trainer | GitHub April 2024
- Achieved a 70% increase in user engagement by developing an intuitive interface with Reflex and using computer vision and AI, along with the Gemini API, real-time body analysis, creating personalized workout plans
- Improved workout plan effectiveness by 85%, as demonstrated by user feedback, through precise body analysis using Python and OpenCV, resulting in dynamically optimized fitness plans as users progress

LEADERSHIP & AWARDS

ATLAS Project | EQ/MQ Coach | Las Vegas, NV April 2024 – Present
Bakersfield College's Code Society | Founder | Bakersfield, CA August 2023 – May 2024
Project 150 | Volunteer Lead | Las Vegas, NV November 2023 – February 2024
NASA's Community College Aerospace Scholar | Houston, TX July 2023 - November 2023
NASA Shining Star Intern | Mountain View, CA July 2023