Vijaykumar Karthikeyan

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EDUCATION

University of California, Los Angeles (UCLA)   September 2024 – June 2028

Bachelor of Science at Henry Samueli School of Engineering

- **Bioengineering** + Technical Breadth in **Computer Science**

Paul Laurence Dunbar High School (Lexington, KY)   August 2020 – May 2024

Math Science Technology Center (selective admissions) + 400-hour Capstone Research

- Unweighted GPA – 4.00   Weighted GPA – 4.83   ACT – 35   16 AP Classes

EXPERIENCE

Cofounder – Cogenesis, Inc.   March 2025 – Present

Developing AI for advanced Biological Image Analysis

- Incubated at Founder's, Inc. and Startup UCLA

Student Researcher – UCLA Bioengineering   January 2025 – Present

- Working under mentorship of *Dr. Mireille Kamariza's* in CRISPR Diagnostics Team
- Developing Algorithms to Design **CRISPR Cas13a Assays** with AI

EXTRACURICULAR ACTIVITIES

Biomedical Engineering Society (BMES) @ UCLA   September 2024 – Present

- Design Team 2024-25 (Project Highlighted Below)

VEST @ UCLA   January 2025 – Present

- Building the best community of Startup Founders and builders at UCLA

HIGHLIGHTED PROJECTS

Extended Portfolio - https://kvijay3.github.io/

Kwo – Machine Learning for Health Prediction – BMES @ UCLA   October 2024 – Present

- Backend Developer – developed **Django Rest Framework** on **AWS EC2**
- **Published iOS application** to the App Store and presented at **BMES Tech Symposium**

Machine Learning for Prediction of Interactions in Organic Semiconductors (OSC)   October 2022 – June 2024

- Worked under mentorship of *Dr. Chad Risko* at University of Kentucky Center for Applied Energy Research
- Developed **ML Algorithms with Pytorch** and validated the use of **Active Learning for OSC Research**
- Presented **Research at Kentucky Science and Engineering Fair** and publication in review

SKILLS

Programming – Python, JavaScript, C++
- ML/AI – Pytorch, FireWorks, LLMs, VLMs
- Full Stack Development – AWS Cloud, REST APIs, MongoDB, React, Flutter

Laboratorial – CRISPR Diagnostic Assays

- Expertise – In Vitro Transcription, QuantStudio 5, High Throughput Multichannel Pipetting