

Alagappan Sellappan

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EDUCATION

University of California, Los Angeles (UCLA)

B.S., Major in Computational and Systems Biology, Minor in Data Science Engineering

Los Angeles, CA

Expected Graduation: Jun. 2026

Relevant Coursework: Cell and Molecular Biology (LS 7A), Genetics, Evolution, and Ecology (LS 7B), Human Biology and Physiology (LS 7C), Calculus for Life Scientists (LS 30A and LS 30B), Introduction to Computer Science I (COM SCI 31), Linear Algebra (Math 33A)

Henrico High School

3.8/4.0 GPA (4.51 Weighted GPA)

Richmond, VA

Sept. 2018 – Jun. 2022

Relevant Coursework: IBDP Biology, IBDP Math A&I, AP Calculus AB, AP Statistics

Awards/Honors: Ronald Reagan Leadership Award Recipient, Innovation Commendation Honor for Innovation by Fmr. Governor of Virginia and Mayor of Richmond, Mathematics Department Merit Award, Article Feature [Electronic Privacy Information Center (EPIC)]

EXPERIENCE

UCLA Health

Software Developer

Los Angeles, CA

May 2023 – Present

- Developing, managing and providing support for custom web and mobile applications for UCLA Health entities and affiliated clients using Bootstrap and JS.
- Developing websites for research labs and student organizations affiliated with either UCLA, David Geffen School of Medicine (DGSOM), and/or the Jonsson Comprehensive Cancer Center (JCCC).
- Enabling automated creation of research profiles for over 8000 faculty, staff, and personnel of the DGSOM.
- Collaborating with organization executives to develop and maintain applications using open-source toolsets like OpenACS and libraries on the AWS Cloud Platform and Linux EC2 instances.
- Analyzing datasets, creating dashboards, and performing statistical calculations using SQL, Collibra, Tableau, and other data science related tools.
- Contributing to E2E testing by writing test scripts via Cypress.

AI and Eye

AI Team Committee Member and Developer

Los Angeles, CA

Feb. 2023 – Present

- Building and training neural network models with image recognition using confidential retina data from a hospital in Andhra Pradesh, India to determine the severity of glaucoma.
- Developing a web application with the implantation of our model to allow the public to test the functionality and determine their overall eye health.

RESEARCH EXPERIENCE

UCLA – David Geffen School of Medicine and Jonsson Comprehensive Cancer Center

Los Angeles, CA

Department of Pathology and Laboratory Medicine – Teitell Lab – Biological Data Science Research Member

May 2023 – Present

- Leading the analysis of omics-related big data through R to determine key features and characteristics of drugs and their effects on the genotypes and phenotypes of gene pathways.
- Developing scripts to automate the data validity and cleansing process.
- Trained in tracking live cells and particles to handle time series images, detect and automatically track structures using different ML algorithms.
- Using AI tools to automatically trace filamentous structures and calculate length, branching complexity, diameter, spine density, and synapse detection.

Virginia Commonwealth University – College of Engineering

Richmond, VA

Modern Heuristics Research Group – Visiting Scholar/Research Intern

May 2021 – May 2022

- Co-developed human-computer interaction-based software under the supervision of Dr. Milos Manic utilizing VR/AR tools (Unity) and programming language (C++) focused on pelvic bone surgeries that intends to train doctors in this blind surgery.
- Successfully initiated and created the first haptic programming guide for 1500+ undergraduate students and 300+ graduates within the College of Engineering at the Virginia Commonwealth University (VCU).
- Received recognition from Terry McAuliffe (Fmr. Governor of Virginia), Levar Stoney (Mayor of Richmond, Virginia), Dr. Michael Rao (President of VCU), and Dr. Barbara Boyan (Dean – College of Engineering) for my work in this groundbreaking research which resulted in a Provost Scholarship (full academic scholarship) at this respective university.

VOLUNTEERING OPPORTUNITIES

Cedars-Sinai Medical Center

Los Angeles, CA

Transformative Care at Bedside (TCAB) Volunteer – 5NE Cardiology

Feb. 2023 – Present

- Assisting nurses with clerical and administrative tasks, answering phones, call lights, and assisting patients and family members.
- Shadowing nurses around the 5NE Cardiology Unit and co-assisting them within patient rooms.

SKILLS

Languages: Python, R, C++, HTML/CSS/JS

Visualization: Microsoft Power BI, Tableau, Google Data Studio

VR: Unity3D

Data Catalog: Collibra

Cloud: AWS

Databases: Microsoft Access, PostgreSQL