Alagappan Sellappan

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EDUCATION

University of California, Los Angeles (UCLA) — Los Angeles, CA
B.S., Major in Cognitive Science w/ Computing Specialization, Minor in Statistics & Data Science — Expected Graduation: Jun. 2026

EXPERIENCE

SoCalGas – Sempra Utilities — Los Angeles, CA
Data Engineering and Asset Strategy Intern — Dec. 2023 – Present

- Conducting meticulous data analysis on extensive datasets from gas pipelines and energy grids using Python and SQL, extracting actionable insights to enhance fluid flow and thermal dynamics, impacting 100+ systems across Southern California.
- Creating visually compelling and informative dashboards utilizing Power BI and Tableau, effectively communicating complex technical information to 50+ stakeholders, leading to better decision-making processes.
- Co-leading the development of a Generative AI repair predicting tool using AWS S3, Glue, and Redshift, identifying the potential error-prone sites and implementing preventative measures, aiming to reduce the risk of pipeline failures by 15-25%.

Exact Sciences — San Diego, CA
R&D Technical Product Management and Data Science Intern — Jun. 2024 – Aug. 2024

- Contributed to R&D efforts for blood-based colorectal cancer detection and minimal residual disease detection for cancer by analyzing data, managed R&D features, refined product development workstreams, and driving research outcomes at various stages.
- Developed a Generative AI product development tool using Databricks, Python (PySpark, sentence-transformer, etc.) to help stakeholders plan new projects by leveraging insights from previous challenges and market comparisons, improving project planning efficiency.
- Maintained Smartsheet project information, designed interactive dashboards, managed Confluence pages for 10+ cancer screening products, thereby improving portfolio reporting by collaborating with Sr. Directors and C-Suite executives.

UCLA Health — Los Angeles, CA
Software Developer — May 2023 – Aug. 2024

- Developed and supported custom web and mobile applications for UCLA Health entities and affiliated clients using Bootstrap and JS, enhancing user experiences for 500+ users.
- Automated the creation of research profiles for over 8000 faculty, staff, and personnel at DGSOM, streamlining the process and saving 100+ hours annually.
- Analyzed datasets and creating dashboards using SQL, Collibra, and Tableau, providing actionable insights and improving data-driven decision making for 15+ projects; collaborated with executives to develop applications using OpenACS and Amazon Linux EC2 instances.

FOX Corporation — Los Angeles, CA
Software Engineer Intern – Data & Commercial Technology — Feb. 2024 – Apr. 2024

- Spearheaded the development of an error-logging and handling system for key internal and external systems, improving the reliability and maintainability of FOX's commercial operations by 20%.
- Utilized TypeScript, Next.js, GraphQL, and AWS to architect and test scalable solutions, enhancing system performance and scalability.
- Enhanced error traceability within workflows, increasing error visibility by 15%, and enabling faster resolution times by 25%.

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 – Apr. 2024

- Led the analysis of omics-related big data through R, identifying key drug features and their effects on gene pathways, impacting an important study with the potential to impact 10+ other studies.
- Developing scripts to automate the data validity and cleansing process, increasing data accuracy and saving time.
- Utilizing ML algorithms and AI to track life cells, trace filamentous structures, and calculate various metrics, enhancing measurement accuracy.

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 programing 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.

SKILLS

Languages: Python, R, C++, HTML/CSS/JS
Visualization: Microsoft Power BI, Tableau
VR: Unity3D
Data Catalog: Collibra
Cloud: AWS, Databricks
Databases: Microsoft Access, PostgreSQL, SAP HANA