# **AADITYA SURYA**

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#### **EDUCATION**

## University of Southern California – Los Angeles, CA

Viterbi School of Engineering and Marshall School of Business

Bachelor of Science, Computer Science and Business Administration (STEM)

**Relevant Coursework:** Advanced Math (Linear Algebra, Differential Equations, Calculus III), Business Micro and Macroeconomics, Discrete Math, Organizational Behavior, Data Structures & OOP, Marketing Fundamentals

#### **EXPERIENCE**

# Frenchy Digital

Los Angeles, California

Exp. Grad. May 2026

November 2024 – February 2025

Technical Product Management Intern

- Orchestrated collaboration between designers and stakeholders to refine UI/UX through Figma, integrating A/B testing insights to optimize user behavior-driven design for Suren, a B2B SaaS in commercial building automation.
- Coordinated design sprints, gathered and integrated user feedback, and leveraged data-driven decision-making to improve usability, accessibility, and scalability through iterative testing and behavior analysis.
- Directed development preparation by outlining workflows, identifying key resources, and creating a roadmap, implementing A/B testing-driven refinements to ensure efficiency and seamless execution.

GENISYSAPP Chicago, Illinois

Product Management Intern

May 2024 – August 2024

- Built and optimized client-facing dashboards using React, Tableau, SQL, and Python, streamlining project tracking for 5+ ongoing projects and improving data visualization for key client reports.
- Collaborated on ERP and cybersecurity product development, leading client discussions and presenting tailored solutions
  to drive successful delivery for two key clients.
- Developed internal tools, including Slack channels and project management dashboards, boosting team communication and improving operational efficiency by 20%.

Sita Corp Somerset, New Jersey

Software Engineering Intern

December 2022 – January 2023

- Engineered an NLP-based resume parser using Spacy & TensorFlow, improving skill extraction accuracy by 22%, and optimizing hiring pipelines for 2,485+ candidates.
- Optimized loss functions for text classification, reducing false matches by 15% and enhancing job-applicant matching precision across enterprise recruitment platforms.
- Designed a multi-threaded data processing system, accelerating resume analysis by 30%, improving system efficiency, and reducing server downtime.

# LEADERSHIP AND PROJECTS

## **Glycosylation Site Prediction Research**

Research Assistant

Rochester, New York

May 2025 - Present

- Applied protein large language models (ProtT5, ESM-2) to generate 1024-dimensional embeddings for 9,000+ human glycosylation sequences and transfer-learned to predict modifications in 300+ archaeal sites with high accuracy.
- Implemented and evaluated four embedding strategies (WSPE, WSWE, FSPE, FSWE), selecting FSWE for its superior F1 score (+9.3%) and ability to capture both global and local amino acid context.
- Designed a binary classification pipeline using deep learning to identify N-linked glycosylation from raw protein sequences, enabling improved understanding of archaeal post-translational modifications.

# **Breast Ultrasound Image Classification Research**

Team Lead

Los Angeles, California

June 2023 – January 2024

- Developed a CNN-based tumor classification model using MobileNetV2, achieving 82% accuracy and reducing false positives by 12% through custom loss functions and adaptive optimization techniques.
- Optimized image preprocessing pipelines, enhancing feature extraction and improving model inference time by 30%, ensuring scalability for real-time medical imaging applications. The paper was published in BJUR Vol. 10.
- Deployed multi-GPU distributed training with PyTorch, reducing training time by 40%, and improving model generalizability for deployment in Lesotho, Malawi, and Nepal.

## **SKILLS & INTERESTS**

Skills: Python, C++, Swift, NLP, ML Classification, Fullstack Dev (HTML, CSS, React), CNN, Pytorch, Git, SQL

Languages: English (native), Hindi (native), French (intermediate), Nepali (work fluency)

Countries Lived In: India, Mozambique, South Africa, Lesotho, Malawi, Nepal, United States

Interests: Swimming, Hiking, Travelling, Poetry, Trekking, Nepali Cuisine, Raspberry Pi, Unnecessary Inventions, Chess

**Certifications:** Economics & Entrepreneurship (Columbia), Marketing Analytics (UC Berkeley), Big Data & ML (Columbia), Data Science (Harvard), Python (Microsoft), Oracle Cloud Infrastructure Foundations (Oracle)