# ABHISHEK SRIRAM

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Passionate engineer with a keen interest in applying expertise in statistical analysis, machine learning, and large language models to contribute to the advancement of technology, particularly in the realm of Machine Learning and Al.

#### **SKILLS & CERTIFICATION**

- Certifications: AWS Cloud Practioner (Expected March 9<sup>th</sup>), Leadership Santa Cruz County (Expected June 13<sup>th</sup>).
- Skills: Statistical Analysis Machine Learning Large Language Models (LLM/NLP) Python PySpark Data Cleaning Exploratory Data Analysis (EDA) SQL Tableau Big Data Analysis Cluster Analysis Data Analytics Technical Support Google Workspace Administration Website Development Mathematical Research LaTeX Databricks AWS Adobe Creative Cloud Excel Attention to Detail •

#### **PROFESSIONAL EXPERIENCE**

# Campus Kids Connections, Capitola, CA

August 2023 - Present:

### **IT Admin & Teacher**

- Spearheaded new website development, improving services for 850 families annually.
- Produced Paylocity onboarding videos, streamlining orientation for new candidates.
- Delivered technical support on Google Workspace, ensuring seamless operations.
- Developed engaging weekly curricula for elementary students.

#### Data.ai, Aptos, CA

June 2023 - October 2023:

## Data Analyst Intern (Remote)

- Led projects in Data Cleaning, EDA, Statistical Analysis, and Automated Report Setup using Python and PySpark.
- Conducted 'Big Data' analysis with PySpark's SQL functions and Tableau, providing actionable insights.
- Developed algorithm identifying duplicate ads, reducing redundancy by 12-13%.
- Collaborated with the senior team in the Data Scientist department to study and enhance knowledge, showcasing a commitment to continuous improvement.

## Self-Contracted/Care.com, Santa Cruz, CA

January 2019 - Present:

#### **Mathematics Tutor**

- Delivered personalized tutoring to school-age children and Undergraduate students.
- Effectively communicated complex mathematical concepts, aiding student success.
- Cultivated a reputation for clarity and patience.
- Notably assisted a dyslexic senior student to achieve an 'A+' in mathematics.

#### **EDUCATION**

# University of California, Santa Cruz, CA

2023

## B.A. Mathematics with HONORS, Computational Mathematics Concentration

- Dean's List for three consecutive quarters and Honors.
- Senior Thesis Research: Explored Minkowski Hyperbolic Geometry in Special Relativity.
- Key classes: Complex Analysis, Advanced Linear Algebra, Probability Theory, Number Theory, Industrial Math, Systems of Ordinary Differential Equations.

#### RELEVANT PROJECTS

# Automated Text Analysis | Independent Research (Mentored by <u>Pedro Morales-Almazan</u>, Associate Teaching Professor and Undergraduate Vice Chair):

- Successfully executed independent research, showcasing the ability to initiate and drive comprehensive projects.
- Applied spaCy and custom algorithms to effectively analyze and extract insights from unstructured student prompts.
- Implemented a summarization algorithm for condensing information, demonstrating a practical application of NLP techniques.
- Emphasized a focus on non-majority information to uncover nuanced details, contributing to a more comprehensive analysis.

#### Hopf Fibration | Independent Research (Mentored by Seiji Kieran Hansen, Graduate Student and Teaching Assistant):

- Investigated the intricacies of Hopf Fibration, a fundamental concept in topology.
- Collaborated with mentor Seiji on exploring its applications and implications.
- Awarded an academic stipend for exemplary research and presentation skills.
- Demonstrated a commitment to advanced mathematical concepts and their real-world relevance.

#### Crypto Arbitrage Pair-wise Trading | Team Project:

- We used web scraping and Python, to gather historical data for 50 crypto coins for arbitrage..
- Applying clustering and neural networks, we identified three pairs—Celer and Doge, Compound and Solana, Shiba, and TRX.
- Despite limited predictive success, the project laid the groundwork for future advancements, acknowledging the need for more resources.
- Led data collection, team management, and Research.