Mark S. Kim

📱 510.499.7953 ♦ ✉ mkim797@yahoo.com

🔗 mkim797 ♦ 🔗 mkim797

Education

SAN FRANCISCO STATE UNIVERSITY   2018 to Present
Computer Science, B.S. AND *Mathematics: Advanced Studies, B.A.*
Anticipated graduation: May 2023
GPA: 4.00

UNIVERSITY OF CALIFORNIA AT DAVIS   1995 to 2000
Uncompleted Genetics B.S.

Honors & Awards

First place final presentation for the Frontiers in Data-Driven Computing REU at the University of Houston   Aug 2021

Finalist of the SFSU Innovation and Entrepreneurship Pitch Competition   May 2021

Dean's List, San Francisco State University   2018, 2019, 2020, 2021

Research and Fellowships

PHISHING EMAILS: CLUSTERING AND ANALYSIS - Leesburg, VA   Jun 2022 to Aug 2022
Cofense Inc.
Research Supervisor: Chip McSweeney, Senior Research Engineer

- Investigation of clustering for early detection and categorization of phishing emails with an emphasis on computational speed and performance.
- Restructure and optimize Python C extensions that parse and analyze emails. Reduced memory usage by 95% and increased data utilization by 5%.
- Develop and validate thread-based and process-based parallelization (asynchronous). Reduced total processing time by 80%.
- Examine and analyze tradeoffs between dimensional reduction (PCA) and maintaining data precision.

GRAPHICAL MODELS FOR BRAIN NETWORKS - San Francisco, CA   Jan 2022 to May 2022
San Francisco State University Department of Mathematics
Research Supervisor: Dr. Serkan Hosten

- Study and exploration of *Graphical Models* by Steffen Lauritzen and "Fused graphical lasso for brain networks with symmetries" by Ranciati, Saverio et al.

FRONTIERS OF DATA-DRIVEN COMPUTING REU - Houston, TX   Jun 2021 to Aug 2021
University of Houston Department of Computer Science
Funding by the National Science Foundation
Principal Investigator: Dr. Ernst Leiss
Research Supervisor: Dr. Ionnis Pavlidis

- Develop and implement retrieval algorithms for affective research data (documents and authors) from Scopus, PubMed, and Web of Science.
- Exploratory clustering and co-occurrence matrix analysis of retrieved data for a quantitative history of affective research.

COB INNOVATION AND ENTREPRENEURSHIP FELLOWSHIP - San Francisco, CA   Sept 2020 to May 2021
San Francisco State University Lam Family College of Business
Faculty Director: Dr. Sybil Yang

- Cross-functional collaboration with co-founders to design and develop test preparation platform for disenfranchised students.

REMOTE INSTRUCTION PEDAGOGY IN MATHEMATICS - San Francisco, CA   Apr 2020 to Jun 2020
San Francisco State University Department of Mathematics
Research Supervisor: Dr. Shandy Hauk

- Academic literature review of research in pedagogical best practices for remote instruction.

Change-point Analysis Algorithm Development - San Francisco, CA   Nov 2019 to Jan 2020
San Francisco State University Department of Mathematics
Research Supervisor: Dr. Alexandra Piryatinska

- Workshops in numerical methods and statistics theory in preparation for research in change-point analysis and algorithm development.
- Study of completed change-point analysis research with the goal of adapting Matlab code to Python.

Organizations

Association for Computing Machinery (ACM), SFSU Student Chapter   Sept 2019 to Present
President, May 2022 to Present

SF Hacks   May 2022 to Present
Treasurer, May 2022 to Present

Society for Industrial and Applied Mathematics (SIAM)   Oct 2021 to Present

Employment History

Undergraduate Teaching Assistant   2021 to Present
San Francisco State University - San Francisco, CA
Center for Science and Mathematics Education (CSME)

Undergraduate Teaching Assistant   2019 to 2021
San Francisco State University - San Francisco, CA
Department of Mathematics

Financial Center Manager, AVP   2017 to 2018
Bank of America - Belmont, CA

Founder/CEO   2005 to 2017
Kindred Enterprises Incorporated - San Francisco, CA

Landing Support Specialist, Corporal   1995 to 2001
United States Marine Corps Reserve - San Jose, CA

Skills & Competencies

Languages: Python, Java, C/C++, JavaScript, HTML, CSS, MySQL, Matlab, R

Operating Systems: Windows, MacOS, Linux (Ubuntu, Debian)

Web Frameworks/Environments: Node.js, Express.js, React.js, Handlebars.js

Libraries: Pandas, NumPy, scikit-learn, Matplotlib, BeautifulSoup, Plotly, Dash

Deployment/Cloud Computing: AWS (EC2, S3, and Route53), Google Cloud (Compute Engine, Storage, Domains), Google Analytics, NGINX

Development Platforms: Docker, Git, Jupyter, Conda

Development Environments: VSCode, IntelliJ IDEA, Visual Studio, PyCharm

Other: LaTeX, Adobe Creative Suite (XD, Illustrator, InDesign, Photoshop)

Mark S. Kim