

Michael Issa

☎ 1-619-493-8153 | @ michaelissa1879@gmail.com

Education

SAN DIEGO STATE UNIVERSITY

Bachelor of Science, Computer Science - 2024

Links

 LinkedIn

 GitHub

 Website

Experience

Data Processing

Faculty-Student-Mentor-Program

Worked under Dr. Melody K. Schiaffino (PhD, MPH) to visualize and clean data large data sets from (10+) hospital records. Collaborated in teams to read academic research articles and propose research initiatives. From - 2022-2023

Math Tutor

Tutored peer-students in linear algebra at the drop in Math and Learning Stats Center at SDSU. Tutored a cohort of 30-40 incoming SDSU students in pre-calculus for mathematical prerequisites. From - 2021-2022

Skills

PROGRAMMING

C++ • Java • Python • JavaScript • Bash • SQL • HTML/CSS • \LaTeX • Stan • R

SOFTWARE

Git • Linux • XNU • Microsoft Office • Tableau • Shiny • Quarto • Google Workspace • Jira • Confluence • Atlassian

TECHNICAL

Statistical Modeling • Predictive Modeling • Data Analysis • Time Series Analysis • Outlier Analysis • Bayesian Inference • Machine Learning

INTERPERSONAL

Communication • Project Management • Software Development Cycles • Technical Writing

Relevant Coursework

- Data Structures
- Machine Learning
- Applied Computer Vision (Graduate)

Projects

Autoregressive Forecasting in CmdStanPy

- Implemented Bayesian structural time series models to analyze and forecast time series data.
- Demonstrated the iterative process of fitting simple models, building up to complicated, realistic models.
- Project available at: [GitHub](#)

Bayesian VAR in CmdStanPy

- Developed Bayesian Vector Autoregressive (VAR) Models, demonstrating model fitting, impulse response analysis, and forecasting.
- Conducted a comprehensive comparison between Bayesian VAR models and MLE fits using macro-economic data, showcasing the advantages of Bayesian approaches.
- Demonstrated the use of hierarchical priors in Bayesian VAR models, highlighting industry-standard priors and their benefits for improved model performance and interpretability.
- Project available at: [GitHub](#)

Binaural Sound Source Localization

- Predicted sound source azimuth using feature extraction and machine learning.
- Used spectral ITD, spectral ILD, and MFCCs as features; trained a Random Forest Classifier.
- Achieved an accuracy of 96% on held-out test data.
- Project available at: [GitHub](#)