

# Viswa Sushanth Karuturi

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## EDUCATION

**University of Arizona, College of Science**

**Tucson, Arizona**

*Bachelor of Science*

May 2027

- **Major:** Statistics & Data Science, Computer Science
- **Minor:** Information Science, Technology & Arts

## TECHNICAL SKILLS

**Languages:** Python, R, SQL, Java, C/C++, Bash/Shell scripting

**Data & Machine Learning:** Pandas, NumPy, EDA, Feature Engineering, Statistical Modeling, Regression, Tree-Based Models, Time Series Analysis, Model Evaluation, Computer Vision

**Data Engineering & Cloud:** ETL Pipelines, Apache Airflow, PostgreSQL, Data Warehousing, AWS, Azure, Docker

**Systems & Tools:** Linux (Ubuntu), Git/GitHub, Tableau, Microsoft Office, Streamlit

## PROJECTS

**Tucson Crime Insights | Python | [GitHub](#) | [Dashboard](#)**

April 2026 – May 2026

- Analyzed 243,127 TPD crime incident records spanning 2018–2025, performing custom time parsing, missing value handling, and feature engineering on raw open data.
- Built and compared 5 classification models (Logistic Regression, LDA, Decision Tree, Random Forest, SVM) using stratified cross-validation; Random Forest achieved best CV F1 Macro of 0.209.
- Developed an interactive Streamlit dashboard with choropleth maps using GeoJSON boundary data from Tucson and Pima County open data portals, enabling geographic crime pattern analysis by division and ward.

**Financial Collapse Indicators | R | [GitHub](#)**

April 2025 – May 2025

- Developed multiple linear and logistic regression models on ~6,000 cross-country observations (1990–2023) to construct a continuous economic index and binary collapse indicator.
- Applied Box-Cox transformations, Cook's distance, VIF diagnostics, and AIC/ROC-based model selection to validate robustness and identify shadow economy activity as the dominant predictor.

## PROFESSIONAL & LEADERSHIP EXPERIENCE

**University of Arizona, College of Information Science**

**Tucson, Arizona**

*Front Office & Business Operations Student Worker*

August 2024 – Present

- Support front office operations including reception, visitor coordination, and day-to-day administrative tasks.
- Assist the business operations team with PCard reconciliation and reimbursement processes, ensuring accurate documentation and timely processing of financial transactions.

**[STAR-X Club](#) – NASA Lunabotics Competition**

**Tucson, Arizona**

*Software & Autonomy Lead*

November 2025 – Present

- Lead rover software and autonomy development using ROS for navigation, control, and telemetry integration.
- Architect modular ROS-based software systems for rover autonomy and coordinate integration across mechanical and electrical subsystems to ensure reliable navigation, control, and telemetry performance

**VIP - [Getting to Know U](#)**

**Tucson, Arizona**

*Cloud & Data Engineering Team Member*

January 2026 – May 2026

- Develop a scalable degree-planning platform on AWS, designing data storage and retrieval solutions using Amazon S3 and DynamoDB to manage structured academic datasets.
- Build and maintain cloud-based data workflows that support secure data ingestion, transformation, and analytics, enabling dashboard development and predictive modeling initiatives.

**University of Arizona, Department of Computer Science**

**Tucson, Arizona**

*Undergraduate Teaching Assistant*

January 2025 – May 2025

- Supported 100+ students in discrete mathematics topics including proofs, graphs, trees, and combinatorics.
- Designed and led structured review sessions to clarify complex concepts, and break down formal proof strategies.

## CERTIFICATIONS & ACTIVITIES

**Certifications & Training:** Agile with Atlassian Jira, Python for Everybody (University of Michigan), CRM with Hubspot (Starweaver, Coursera), Fundamentals – AI, Blockchain, IoT, Cloud (ISACA), Data Visualization with Tableau

**Activities:** STAR-X Club; Peace Corps Club; Community Volunteering