

Kathan Parag Shah

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EDUCATION

Bachelor of Science in Computer Science and Economics, Arizona State University

May 2026

Major GPA: 3.81/4.0 (Dean's List)

Key Modules: Principles of Programming, Object-Oriented Programming & Data Structures, Data Structures & Algorithms, Discrete Mathematical Structures, Probability & Statistics for Engineering Problem Solving, Principles of Programming Languages

PROFESSIONAL EXPERIENCE

W.P. Carey School of Business, Arizona State University

Oct 2023 - Nov 2024

Tempe, AZ *Information Technology Support Specialist*

- Automated ticket triage and standardized IT workflows using Django and Git to streamline support processes for faster resolutions and uptime improvements across critical enterprise systems, achieving a 35% reduction in average downtime.
- Streamlined troubleshooting protocols and implemented automated diagnostics scripts to reduce system downtime by 25% while meeting 1-hour first-response SLAs across all infrastructure components, improving reliability metrics.
- Collected user feedback and collaborated with stakeholders to redesign the support portal UI, implementing enhancements that boosted satisfaction scores by 20% and improved accessibility compliance across platforms, resulting in increased adoption.

Sun Devil Athletics, Arizona State University

Oct 2023 - Nov 2024

Tempe, AZ *Technology Assistant*

- Managed the setup, maintenance, and troubleshooting of over 150 IT systems, ensuring 98% operational availability and resolving 95% of technical issues within 24 hours to minimize disruptions and support uninterrupted athletic operations.
- Designed and delivered staff training programs on IT best practices and system workflows, boosting technical proficiency and operational efficiency by 30% across staff teams to enhance support capabilities, reduce incidents, and ensure knowledge.
- Implemented proactive maintenance schedules and custom monitoring scripts, detecting potential failures before they occurred and reducing unplanned outages by 40% while supporting continuous athletic department operations and user satisfaction.

PROJECTS

Wheel Strategy Options

- Developed a dynamic web application that fetches real-time options data via API, calculates covered-call metrics (yield, breakeven, probability), and enables users to filter opportunities by underlying price, expiration date, and risk profile.
- Implemented an intuitive React front-end with interactive tables and charts, paired with a Node.js/Express backend handling data processing and caching to ensure sub-second response times under heavy query loads.

MegaShop E-Commerce Dashboard

- Created an interactive sales analytics dashboard with React and Chart.js to track revenue, customer behavior, and inventory trends.
- Implemented RESTful APIs in Node.js and MongoDB to support dynamic filtering and drill-down capabilities for business stakeholders.

Sea Level Predictor

- Built a time-series forecasting model using ARIMA and LSTM networks in Python to predict coastal sea level changes.
- Packaged results into a Streamlit app with interactive charts, enabling users to explore projections and confidence intervals.

Page View Time Series Visualization

- Engineered a dashboard with Plotly Dash to visualize website traffic patterns and detect seasonal trends in page views.
- Automated data ingestion and preprocessing workflows with Pandas and SQL, reducing analysis time by 40%.

Medical Data Visualization

- Designed an interactive healthcare analytics tool in R Shiny to explore patient outcomes across demographics and treatment plans.
- Employed ggplot2 and plotly for customizable visualizations, aiding clinicians in rapid identification of at-risk populations.

Mean Variance Standard Deviation Calculator

- Implemented a lightweight Python CLI utility to compute descriptive statistics for any numeric dataset.
- Added CSV import/export functionality and error-handling routines to ensure robustness for large-scale data inputs.

Demographic Data Analyzer

- Built a Jupyter Notebook pipeline using Pandas and Seaborn to clean, analyze, and visualize census datasets by region and age group.
- Devised automated reporting scripts that generate summary tables and plots, accelerating stakeholder insights delivery.

SKILLS

Technical: Python (NumPy, Pandas, Seaborn, NetworkX, scikit-learn), R (tidyr, dplyr, ggplot2), SQL, Power BI, Stata, QGIS, Git/GitHub

Methods: Object-Oriented Programming, Agent-Based Modeling, Scenario Analysis, Statistical Risk Assessment, K-Nearest Neighbors, Support Vector Machines, Econometric Modeling