

SIMI SAHA

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EDUCATION

University of Arizona, BS in Computer Science, Minor in Mathematics | Honors College | Arizona, USA

May 2025

Online Courses: (Average Score: 99%): **Duke**: Programming Foundation with JavaScript, HTML, and CSS | **UIUC**: Data Structures and Algorithms | **IBM**: Python for Data Science and AI | **WhartonUPenn**: Fintech: Foundations, Payments and Regulations | **Google Cloud**: Core Infrastructure, Artificial Intelligence | **Rice**: Parallel Programming in Java | **Stanford**: Divide/Conquer, Randomized Algorithms

Conferences: Harvard WECODE | NASA JPL | IEEE | ISSCC | ASME | ISSC

AWARDS & RECOGNITIONS

Arizona Distinction Award(Aug 21-May 25) | **Arizona Achievement Award**(Aug 21- May 25) | **Dean's List Academic Recognition** (Fall 2021,22,23, Spring 2022,23,24) | **Academic Distinction Award**(Academic year 22-23, 23-24)

CORE TECHNOLOGIES & SKILLS

Languages: Python, Java, C/C++, SML, Prolog, R, HTML, CSS, Javascript, SQL, Typescript, LaTeX, Excel

Big Data/Machine Learning: Spark, Hadoop, MongoDB, Python(Sci-kit learn, numpy, pandas, matplotlib), Tensorflow, Pytorch

Software: Tableau, AWS, GoogleCloud, Azure, VisualStudioCode, Git, Jenkins, Selenium

PROFESSIONAL EXPERIENCE

Undergraduate Research Ambassador | Student Engagement and Career Development | Arizona, USA

Aug 24-Present

- Optimized systems to connect students with research opportunities by leveraging problem-solving and resource management.
- Facilitated 15+ workshops and advising sessions, guiding over 200 students through research and application processes.
- Leveraged personal research experience to inspire peers, fostering a culture of curiosity, and critical thinking.

Researcher | Natural Language Processing | Arizona, USA

Aug 24-Present

- Created bias-mitigation frameworks to enhance fairness in healthcare AI models, reducing bias in predictions by 20%.
- Applied advanced NLP techniques to analyze and address biases within healthcare datasets and predictive models.
- Evaluated bias mitigation strategies to ensure ethical AI compliance in healthcare systems.

Functional Skills Student Assistant | Student Engagement and Career Development | Arizona, USA

Aug 23-Present

- Ensured data integrity by managing student records in Excel, maintaining 90% accuracy for efficient record-keeping.
- Developed and maintained a website as a central resource hub, increasing user accessibility by 40%.
- Streamlined communication processes to boost student engagement and satisfaction.

Internship Peer Coach | Student Engagement and Career Development | Arizona, USA

Jan 23-Present

- Improved student career potential through personalized coaching on resume/CV writing for 300+ students.
- Led 20+ interactive workshops on job search strategies, offering practical insights and valuable tips for 200+ students.
- Coordinated 45 career fairs, connecting 500+ students with employers and expanding networking opportunities.

PROJECTS

Slo-fashion | Winner at Hackprinceton

April 24

- Built a responsive full-stack application using React.js, Tailwind CSS, Python, Node.js, MongoDB, and Auth0, integrating VerbWire for automated logistics to simplify recycling.
- Overcame challenges with CORS, environment configuration, database management, and authentication; gained hands-on experience in web security, full-stack deployment, and user experience optimization.
- Skills**: React.js, Tailwind CSS, Node.js, MongoDB, Auth0, Verbwire.

Code Analyzer for Static Code | Personal Project

March 24

- Developed a Python-based static code analysis tool to detect PEP8 violations, security vulnerabilities, and performance issues.
- Skills**: Python, Abstract Syntax Tree (AST), software engineering practices, performance analysis.

Machine Learning Sentiment Analysis | Class Project

Aug 24-Dec 24

- Developed a machine learning model to detect toxic comments on gaming platforms using Python and sci-kit-learn.
- Skills**: Data collection using APIs (e.g., Kaggle API), NLP, Python, sci-kit-learn, TensorFlow, or PyTorch.

Sustainable Fashion Data Analysis | Honors Project

Jan 22-April 22

- Analyzed data on the environmental impact of textile dyeing to understand key pollution metrics.
- Developed algorithms to optimize sustainable, affordable natural dyeing techniques, promoting eco-friendly practices.
- Skills**: Data analysis, Python, algorithm development, sustainability assessment, statistical modeling, environmental data processing.