

## SUMMARY

Computer Science Graduate Student, seeking a full-time position after Graduating in May 2025 as a Software Developer Engineer in Machine Learning roles.

## EDUCATION

**M.S. Computer Science** (Arizona State University) **GPA: 4.00/ 4.00**

Expected May 2025

**B.S. Computer Science** (Arizona State University) **GPA: 4.00/ 4.00**

Graduated May 2024

Grand Challenge Scholar

## TECHNICAL SKILLS

**Programming Languages:** Python, C#, C++, Java, C, Prolog, Scheme, SQL, MATLAB, Swift.

**Tools and Applications:** Eclipse, Visual Studio Code, Google Colab, XCode, SharePoint, Excel, PowerBI, JIRA, Siemens Teamcenter.

**Libraries:** NumPy, Seaborn, Pandas, Matplotlib, OpenCV, CV2.

**Relevant Courses:** Data Structures and Algorithms, Theoretical Computer Science, Principles of Programming Language, Operating Systems, Distributed Software Development, Intro to AI, Foundations of Machine Learning, Statistical Machine Learning, Semantic Web Mining, Discrete Mathematics, Probability, and Statistics.

## WORK EXPERIENCE

### Intel Corporation

#### Software Engineer (AI/ ML): Graduate Intern

June 2024 – present

- **Deepfake Video and RAG System Development:** Collaborating on a project to create deepfake videos for training materials and implement a Retrieval-Augmented Generation (RAG) system in the training portal to enhance and provide customized employee training experiences.
- **Automation Scripting:** Writing automation scripts and REST APIs in JAVA, C, C++, and C# to streamline Product Lifecycle Management (PLM) processes within the department, improving efficiency and accuracy.
- **QIRI Chatbot Enhancement:** Continuing development on the QIRI chatbot, building on work from my previous undergraduate role to further enhance its capabilities and user experience.

#### Software Engineer (AI/ ML): Undergraduate Intern

May 2023 – May 2024

- **QIRI Chatbot:** Spearheaded the enhancement of a Microsoft Teams-integrated internal chatbot using C# and SQL. Key features included:
  1. **Quick Search:** Developed features such as Quick Connect, which fetches the latest information from databases to connect employees with specific expertise, and Doc Search, leveraging RAG and LLM capabilities for efficient document information retrieval. This was revolutionary and improved the search efficiency in the department by 80%.
  2. **Automated Ticket Filing:** Utilized APIs to seamlessly post information to SharePoint and JIRA.
  3. **Meeting Minutes Automation:** Automated the generation of meeting minutes from transcripts, capturing participants, agendas, summaries, and action items with Intel-specific terminology, increasing employee efficiency by 60%.
  4. **Acronym Expansion:** It provides full forms of acronyms, enhancing communication clarity and reducing ambiguity in meetings for new hires.
- **Data Analysis and Optimization:** Analyzed departmental ticket data using PowerBI to optimize SLA and response times, achieving a 25% improvement in resolution times.
- **Training Portal Development:** Assisted in developing the architectural plan for a training portal, including database and storage solutions. Supported the creation of wireframes and product requirement documents, contributing to a 20% reduction in project planning time.

### Sun Devil Athletics

#### Project Title: Athlete App Management System

December 2022 – May 2023

- Designed and developed an **iOS app** for the Sun Devil Women's Volleyball Team, showcasing athlete's performance and health statistics over time. Implemented predictive analysis to forecast game performance and injury risks, enhancing match analysis by 20%.
- Utilized Core Data to efficiently store and manage players' biomedical and match statistics data. Optimized data presentation to highlight key performance indicators for each player, providing comprehensive progress reports via an intuitive dashboard.

### Undergraduate Student Researcher at Lab V2

#### Project Title: Neuro Symbolic AI for Agriculture Data

March 2022 – December 2022

- **AI Research:** Investigated the underlying reasons for machine learning algorithm predictions in precision agriculture, focusing on object detection.
- **Algorithm Implementation:** Applied the Apriori algorithm for itemset mining to identify key data components impacting the YOLOv5 model using Python.
- **Performance Optimization:** Analyzed and removed factors causing poor model performance, resulting in improved mean Average Precision by 80%.

### Student Engineer at ASU partnered with NAU's CANIS Lab

#### Project Title: ARORA for HOPI Tribe

August 2020 – May 2021

- Participated in the Engineering Projects in the Community Service (EPICS) [ARORA research project](#), developing a mental health awareness mobile application to help prevent suicide among HOPI tribe youth.
- Designed intuitive and culturally sensitive wireframes in Figma, significantly enhancing the user interface and experience.
- Collaborated with a multidisciplinary team to integrate vital mental health support features into the application, ensuring its relevance and effectiveness.

## PUBLICATION

- **Title:** "Hey QIRI, Revolutionizing Efficiency in Design Enablement".
- **Conference:** Accepted for Journal Publication at the Intel Design and Test Conference (DTTC).
- **Authors:** Primary author: Sushrut Ghosal; Co-authors – Latha G. Rao and Michael Rothberg.

## PROGRAMMING PROJECTS

### Distributed Computing Project

- Developed and deployed a service-oriented web application, focusing on providing medical assistance, on the ASU server, incorporating cookies and local encryption/decryption in the DLL library function to ensure data security.
- Created REST APIs to perform basic health checks on patients, generate medical reports, and fetch doctor contact information within a specific radius based on zip code.
- Implemented APIs for nutritional details and healthy recipes, enhancing the application's medical and dietary guidance.

### Number Recognition Calculator, Python

- Developed a Python application to detect and solve handwritten mathematical equations using the device camera.
- Utilized OpenCV for camera access and image capture, and Pytesseract for symbol recognition.

## AWARDS

- I won the first prize at the **WICS Hackathon** at Arizona State University with over 50 participants in Spring 2022.
- I was awarded the [Grand Challenge Scholar Outstanding award](#) for completing the Grand Challenge Scholar's Program.
- I Won the **Moeur Award** for completing my bachelor's degree with a 4.00 GPA.
- **Dean's List** for all **eight consecutive semesters** during my bachelor's degree.
- LinkedIn License in **Artificial Intelligence Foundation: Neural Networks and Learning Data Science: Tell Stories With Data.**