# Annie Prasanna Manoharan

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#### SKILLS SUMMARY

Languages: C, C++, C#, Python, HTML, CSS, JavaScript | Databases: MySQL, Oracle, MongoDB

Tools: LabVIEW, TestStand, Git, Bitbucket, Jira, Figma | Concepts: Agile, SDLC, Scrum

Soft Skills: Collaboration, Ownership, Adaptability

#### EDUCATION

## **Master of Science in Computer Engineering**

Aug 2024 - May 2026 (Expected)

University of Arkansas, Fayetteville, AR | GPA 4.0/4.0

**Bachelor of Engineering in Electronics and Communication** 

Aug 2019 - May 2023

Sri Ramakrishna Engineering College, India | GPA 8.55/10.0

### **INDUSTRY EXPERIENCE**

### Project Engineer at Soliton Technologies, India

June 2023 - June 2024

- Developed a C#/WPF GUI for *Dräger* to integrate test automation tools (C#, Python, LabVIEW), improving onboarding and reducing training costs.
- Sole developer on *Medtronic* project; automated ~94% of manual test cases using MAVIS for medical device testing.

#### **Intern** at *Soliton Technologies*, India

July 2022 – May 2023

• Trained in OOP, LabVIEW, and TestStand. Worked with MAVIS to streamline V&V processes for medical clients.

### Intern at Pricol Engineering, India

Sep 2021 – Oct 2021

• Worked with the Research and Development team on their new project of optimizing an advanced pressure sensor which improved the efficiency in the navigation of modern aircraft systems.

**Intern** at Crystal Clear Technology and Innovation, India

Jul 2020

• Trained in embedded systems using PIC16F887, covering timers, ADC, LCD, and communication protocols (UART, SPI, I2C). Built and simulated applications using MPLAB and Proteus.

#### RESEARCH EXPERIENCE

#### Research Assistant at AICV Lab, University of Arkansas

• Automated Chicken Gait Estimation(link)

Sep 2024 – Feb 2025

Developed a real-time ML system using Meta's Detectron2 to detect leg diseases in chickens (in collaboration with *Cobb*). Used a dataset of 4,250 annotated images (2,646 train / 1,604 val) and the YOLO11n-Keypoint achieved AP50: 99.01% and mAP(50–95): 91.83%.

• Human Parsing Visualization for Virtual Try-On

May 2025 – Aug 2025

Built a tool to overlay and manually correct human parsing masks, improving training data quality. Leveraged GP-VTON (CVPR 2023) segmentation classes; processed 80k unlabeled and 12k labeled images.

## TEACHING EXPERIENCE

• Programming Foundations (C++)

Jun 2025 – Dec 2025

Conduct lab sessions, office hours, and mentor 50+ students; create, review, and grade assignments focused on core programming fundamentals like control flow, loops, functions, arrays, and debugging.

• Database Management Systems

Jan 2025 – May 2025

Assisted in teaching a course with  $\sim$ 180 students by supporting course planning, content delivery, grading, and assessment development; provided guidance through office hours and discussions to clarify concepts.

• Programming (Assembly & VHDL)

Sep 2024 – Dec 2024

Instructed lab sessions for 35+ students across 3 sections, reinforcing theoretical concepts with hands-on implementation and offering technical support and debugging assistance.

### **ACHIEVEMENTS**

- Secured the **third** place in the *LabVIEW Challenger Speed Code Contest*, 2023 at Soliton Technologies.
- Winner of the *Greatest Ideator hapython* 2021 (C Hackathon) of R2C Technologies.

### **CERTIFICATIONS**

- Honours Diploma in Computer Application from CSC (Computer Software College).
- Python Data Structures an online course by *University of Michigan* through Coursera.

### POSITIONS OF RESPONSIBILITY

- **President**, *International Fellowship* (2025–26) Led cultural and educational initiatives connecting international students with local communities.
- Core Member, Bridges International Fostered social engagement and support for international students.
- Deputy Fine Arts Minister, Avila Convent School (2017–18) Served on the school pupil leader council.