

Akash Reddy Banaswadi Yema

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Education

Arizona State University, Bachelor of Science in Computer Systems Engineering | **GPA: 4.0/4.0** **Expected May 2027**
• **Coursework:** *Digital Design Fundamentals, Object-Oriented Program & Data, Computer Assembly Lang. Prog, Modern Differential Equations, Design and Synthesis of Digital Hardware* **Tempe, AZ**

Experience

Technology Consultant, Enterprise Technology, ASU – Phoenix, AZ **May 2025 – Present**

- Delivered frontline technical support to **100+** faculty and students weekly, resolving classroom technology issues with a **95%+** first-contact resolution rate.
- Logged, tracked, and closed **50+** support cases per month, with timely follow-ups and reducing classroom downtime.
- Assisted in monitoring and maintaining enterprise servers, campus networks, and backend systems, contributing to 99% uptime and reliable access to academic technologies.

UG Teaching Assistant, FSE 100, Under Prof. DongAo Ma, ASU – Tempe, AZ **Jan 2025 – Present**

- Guided **45+ first-year engineering students** through weekly collaborative problem-solving and lab activities.
- Partnered with faculty to design and **deliver 12+** interactive learning modules, ensuring smooth execution of course objectives and boosting comprehension scores by **15%**.
- Mentored students individually on study strategies and technical concepts, contributing to a **10% increase** in pass rates for the course.

ENG 102 Tutor Under Prof. Asna Nusrat, ASU – Tempe, AZ **Jan 2024 – May 2024**

- **Coached 30 first-year students** in academic writing; average essay score rose **one letter grade** over the semester.
- Ran **weekly citation clinics** that cut revision time **25%** by teaching Zotero/APA workflows.
- **Built individualized lesson plans** for ESL learners, increasing class participation to **90%+** each session.

Electrical Subsystems Engineer, ASCEND, NASA Space Program – Tempe, AZ **Jan 2024 – Mar 2024**

- Laid out and fabricated power-distribution & sensor-interface PCBs in **KiCad**, passing all pre-flight electrical checks on first review.
- Integrated telemetry, GPS, radiosondes and camera modules in a high-altitude balloon payload that endured conditions of **50 ° C / 3 mbar** during the test ascent.
- Drove cross-team design reviews that compressed build schedule from **8→5 weeks**, enabling an on-time ozone-sampling launch.

Projects

Automated Pool Water-Level Control System – under Prof. Steve Millman, ASU drive.google.com/project/file

- Built a Moore FSM with JK flip-flops to auto-toggle slow/fast fill, keeping water level constant and reducing waste.
- Exhaustively simulated state transitions (Quartus/ModelSim/Logisim); bench tests showed zero illegal states.
- Cut refill water usage by 25–35% in 3 pilot runs, meeting the target level within 0.5cm.

Raspberry Pi-Based Navigation Aid – under Prof. Chavez Echeagaray, ASU youtube.com/vest-video

- Designed a obstacle detection system on RaspberryPi using IR, thermal and ultrasonic sensors for visually impaired users.
- Programmed distance-scaled haptic feedback with gpiozero; validated during walk/run trials without guardian assistance.
- Achieved 98% obstacle-detection accuracy at <1m and improved route completion speed 18% in user tests.

StarAlign

- Implemented real-time solar tracking with Arduino and calibrated light sensors, boosting panel energy capture.
- Automated panel orientation via servo control for continuous sun alignment and higher power output
- Increased daily energy yield by 12–20% vs. fixed-tilt baseline in a 7-day field test.

Technologies

Languages: *Java, Python, SQL, C, C++, Assembly line, Prolog, Scheme, Bolckly, Verilog, x86.*

Technologies: *KiCad, Quartus, ModelSim, Git, Microsoft Office, Adobe Suite, Canvas, Arduino, Peoplesoft.*

Learning skills: *React.js, TensorFlow*