Prajwal V Sangam

IIT Bhubaneswar | 2018-2022
pvsangam1310@gmail.com | Phone: +91-7259378479| www.linkedin.com/in/prajwalsangam

ACADEMIC QUALIFICATIONS

Year	Qualification	Institute	% / CGPA
2022	B Tech (ECE)	Indian Institute of Technology Bhubaneswar	8.43
2018	Class XII (State)	Gurukul Independent PU College	93.33%
2016	Class X (State)	SRN Mehta English Medium School	97.12%

Work Experience

Orangewood Labs — **Robotics Engineer** — **Mar 2023 – Feb 2024, 1Yr**

Technical Innovation	• **Delivered** two robot versions with **10+ functionalities**, achieving an **8x improvement in speed**. • Engineered a **novel** motion planning algorithm and control architecture, reducing execution time by **~5x**. • Enabled robot features like spray painting, bin picking, visual inspection, bartending, and powder coating.
Client Solutions	• **Managed** the successful **deployment** of robots at **5+ client sites**, ensuring client satisfaction. • **Analyzed** and developed **customized** automated industry-specific **solutions** for **5+ clients**.
Problem Solving & Collaboration	• **Led 50+** troubleshooting cases for **20+ robots**, solved complex technical issues both **onsite & remotely.** • **Collaborated** with **5 multidisciplinary** departments to resolve **real-time** challenges in robot performance.
Leadership and Initiatives	• **Managed a team of 4 interns**, overseeing onboarding, task allocation, and successful project execution. • **Presented** robotic demonstrations for **5+ marketing campaigns** to **key stakeholders**.

TCS Research And Innovation Labs — **Robotics Researcher** — **Sep 2022 – Feb 2023, 6M**

- Designed and **validated proof-of-concepts** to test the integration of VR with robotic controls. Multi-disciplinary project.
- Explored **industry-wide automation trends** to identify motion planning opportunities in robotic manipulators.

Personal Initiative: Commute Together – A Commuter Connectivity Solution — **Mar 2024 – June 2024, 3M**

- **Identified a latent commuter need** for social connection during daily travel through observational research and Reddit user insights; **validated the problem with structured surveys and secondary academic studies.**
- **Designed and iterated** on a social commuting app with features like **route-based user matching**, commute neighbor feed (**retention and engagement**), guided meetups (**onboarding and behavior development**), gamified engagement **(habit loops**) (e.g., badges, karma points).
- Conducted **competitive benchmarking** with platforms like Yubo and Meetup to differentiate features and ensure user value.
- Conducted primary user research via **interviews (20+)** and **surveys (100+)** to **validate commuter pain points.**
- Carefully designed feature to avoid overlap with dating apps by defining **clear positioning and safety-first UX.**
- Crafted a **long-term product vision** centered around building micro-communities for commuters and **proposed monetization strategies** via location-based brand partnerships and in-person rewards.

ACADEMIC PROJECTS & SKILLS

Product case study: Spotify Proof	• Conducted **root cause analysis** on user dissatisfaction with Spotify's song recommendations. • Proposed new **product directions** like **moments made by music**, **post-listening reflection**, and **learning from active listeners** to improve recommendation relevance. • Product thinking frameworks: **Jobs-To-Be-Done, AARRR, Emotional/Functional value mapping.**
Robotic Exoskeleton, DRDO sponsored. Proof	• Developed **Wearable Assistive Robotic Exoskeleton** for the lower limbs of people with spine injuries. • **Central** role across **multiple domains**, including the design of Electronics, UI/UX, and software. • Delivered impactful results, advancing progress from **~10% to ~85% completion** within **6 months**, • Recognized for exceptional **contribution** and **project management**, was **awarded** with **15k**. • Coordinated junior **team recruitment and training**, successfully **secured funding**(**10+ lakh**) from **DRDO.**
Warehouse Automation Proof	• **Led a diverse team of 10** (3 EC, 2 ME, 3 EE, 2 CS) to achieve a **top 46 ranking out of 9549 teams**, advancing to the **semi-finals in Flipkart Grid 3.0 Automation Challenge**. • **Managed** team operations during the **pandemic remotely**. • Delivered a **cost-effective(₹1.5k per robot)**, reduced robot dimensions by **50**%.

ACHIEVEMENTS & EXTRA-CURRICULARS

Academics	• Cleared **JEE-Advanced** with an **All India Rank** of **4501**, district **2nd** rank. • Secured **98th/2 Lakh** in **KCET** 2018, Karnataka State Level Entrance Examination.
Chess	• Captured **4th and 5th place** in successive years at the **Inter-IIT Sports Meet** Chess. • **1st place** at the **State-Level Interschool Team Championship, KLE Centenary Cup**

SKILLS

Non-technical Skills	• Product Thinking, User Research, Cross-functional Collaboration, Agile Methodologies, Feature Prioritization, Road-mapping, Competitive Analysis, Customer Journey Mapping, Wireframing (Figma), Data Analysis, AARRR Framework, JTBD Framework, MVP Scoping, Figma
Languages	• Python, C, C++, C#, Matlab
Frameworks	• ROS, Webots, Simulink, Simscape, ESP-IDF, Arduino, Flutter, SQL