Anmol Garg

anmol@psu.edu — www.anmolgarg.net

Education

Pennsylvania State University   Aug 23 – May 2025
B.S. Computer Science   GPA: 3.5
Clubs: Ski & Snowboard Club
Manipal Institute of Technology   Oct 2021 – May 2023
Karnataka, India   Transferred
Activities: President of the Computer Science Club, Class Representative 2021-22 & 2022-23, Team lead at Project DronAid

Skills

Programming Skills: Python, Java, JavaScript, Bootstrap, MongoDB, ReactJS, NodeJS, MySQL, Streamlit, JavaFX, Hadoop
General Software & Tools: Github/Git, Adobe Photoshop, CorelDraw, WordPress, REST APIs, Postman, AWS (EC2, S3)

Work Experience

Operations Analyst *Penn State Housing and Food Services*   July 2024 - Present
- Primary task of hiring and onboarding ∼200 student workers every semester.
- Designed and Implemented a data analysis pipeline for insight extraction that processes transactions worth $5M Annually.
- Developed an algorithm to evaluate workers based on several KPIs to assist in assigning duties.
- Optimized various internal technology touch points and workflows to increase operational efficiency unit-wide.

Undergraduate Research Assistant *D3M Lab @ Penn State*   Nov 2023 - Present
- Presented work at conferences including to Pennsylvania Legislators from the Senate and House of Representatives at the State Capitol, APDU @ Georgetown University, NRC @ UPenn, CPEWC etc.
- Major Projects included: NeuroAdaptive VR Therapy, Increasing process efficiency for mining Open Government Data.
- Developed web applications for lab projects.
- Performed extensive literature reviews to support research findings and experiment design.

Research Intern, MCREU Scholars Program *Penn State College of Engineering*   June 2024 - July 2024
- Worked on mental therapeutics research with researchers and doctors across university.
- Integrated machine learning models within VR environments, utilizing biofeedback loops and reinforcement learning to personalize treatment modalities.
- Conducted a meta-analysis and systematic review of 50 related papers, focusing on key metrics such as therapeutic efficacy, patient engagement etc, to identify trends and gaps in current research.

IT Services Specialist *Penn State IT Services*   Nov 2023 - June 2024
- Conducted diagnosis and resolution of technical issues reported by users.
- Deploy and Image University Enterprise Computers.
- Identified gaps in the training program and developed materials to address them that were adopted unit-wide.

Software Developer Intern *Medilance Healthcare*   June 2022 – Nov 2022
- Led the development and launch of an in-house Lead Management Solution.
- Optimized the company websites to serve faster by streamlining code and web server configurations.
- Oversaw the internship program for the digital technology team, leading to onboarding of 15 interns.

Intern *Hivends InfoSolutions*   June 2021 – Aug 2021
- Worked with the team of pharmavends.com and implemented frontend features on the portal using Javascript and CSS.
- Translated designer mockups into functional frontend code for key product pages, with 50% less development time.
- Assisted in the onboarding process by presenting detailed roadmaps to clients.

Extracurricular Experiences

President *Enigma Technical Society*   Sep 2022 - May 2023
Was unanimously elected as the President and assigned the primary objective of re-instituting the club.
- Started a Bi-annual Workshop series with professors, and industry guests as speakers.
- Formalized agreements with student organizations and companies to collaborate on projects and resource sharing.
- Kickstarted numerous projects like Manipal eats and drone building workshop programs.

Web Subsystem Team Lead *Project Dronaid* Dec 2021 – May 2023

DronAid is a university-funded student project at Manipal Institute of Technology, where I led the team responsible for developing web technologies to support a range of use cases.

- Designed and implemented flight control software and API integrations.
- Technical and Design overhaul of the project website.
- Streamlined team operations through an internal resource planning software, reducing project timelines by ∼20%.
- Selected to be part of team to represent the institute in the UAS Challenge 2023 held in Buckminster, United Kingdom.

Publications

Empowering K-12 Students Through Open Inquiry on Open Government Data: A Data-Driven Approach in CS Education - IEEE

This paper presents a transformative approach to data science education that utilizes Open Government Data to bridge theory and practice, The proposed framework integrates hands-on data science tools with evidence-based, culturally responsive pedagogy, aligning students' interests with relevant datasets to foster technical skills and critical thinking.

Accepted, Pending Presentation at IEEE FIE 2024, Washington DC in October 2024.

Research Projects

- **NeuroAdaptive VR Therapy:** Integrating AI and Biofeedback for Personalized Mental Health Treatments.
- **Integrated Data Intelligence System:** Developed a data analysis pipeline for extracting insights from large government datasets, enhancing data intelligence and data-driven decision-making capabilities. The project was reviewed by multiple Pennsylvania Legislators.

Awards

- **MC REU Scholars Scholarship** A partial tuition waiver of USD 5500 for my undergraduate studies at Penn State University was awarded by the College of Engineering along with a Summer Research Position
- **Ackroyd Family Healthier Days Scholarship** This scholarship is given to students working actively on a healthcare-related project on faculty recommendation.
- **PS Chancellor's Scholarship**
- **Penn State Research Travel Grants**
- **Runner Up**, Zancudo by OWASP Foundation @ Thapar University