Ishan Bansal

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Summary

Passionate and disciplined engineer with strong expertise in designing, developing, and debugging software. Possessing excellent communication and problem-solving skills, I thrive in cross-functional teams and multitasking. Proven record of completing 25+ projects and resolving 15+ customer escalations.

Technical Skills

Languages: Python, Go-Lang, C/C++, Java, Scala, SQL, MongoDB, Bash, Batch, YAML, Perl, JavaScript, HTML/CSS
Developer Tools: Git, Docker, Kubernetes, Jenkins, CI/CD, Ansible, Grafana, Kibana, Terraform, Jira, Postman, SpringBoot, Django, Splunk
Technologies: Machine Learning, Deep Learning, REST API, Quality Assurance, Cloud, Virtualization, Automation, Database Management, Linux

Education

University of California San Diego — San Diego, United States
Master of Science, Electrical & Computer Engineering — *September 2023 – June 2025*

Birla Institute of Technology and Science, Pilani — Hyderabad, India
Bachelor of Engineering, Electronics & Communication Engineering — *August 2016 – June 2020*

Research

ZenseTag: Wireless and Batteryfree Universal Sensing Platform *(Patent Submitted)* — April 2024 – Present

- Developed the software for interfacing an RFID reader and capturing the hopping radio frequency signal information in **real-time**.
- Developed the algorithm for resolving signal parameters with **minimal latency** for computing natural stimuli.
- Able to sense stimuli like force, soil moisture and luminosity in real-time with over **95% accuracy** using cost-effective commercial sensors and RFIDs.
- Able to improve throughput by **1000%** reducing the sensory resolution time by **95%** enabling **multi-sensor platforms** and **sub-second sensing**.
- Exploring deep learning algorithms like **recurrent neural networks** in-order to enable applications like **GAIT analysis**.
- Published work at the **ACM SenSys Conference** for 2024. Demonstration manuscript accepted at the **ACM MobiCom Conference** for 2024.

Professional Experience

Senior Software Engineer — January 2020 – August 2023
Cisco Systems Pvt Ltd — *Bangalore, India*

- Developed software for install and upgrade for HyperFlex, a cloud infrastructure management service, achieving a reduction of **22%** in upgrade time.
- Accelerated feature integration, **completing 97% of projects** within the proposed ETA, and improving **time-to-market by 25%**.
- High performer with a **93% bug closure rate** resulting in a **reduction of 70%** in incoming bugs in upgrade software.
- Engineered **automation tools** to manage test scripts and test statistics for Intersight, a cloud-operated infrastructure management platform.
- Developed a CI/CD pipeline-integrated tool for test script review, saving **100 work hours** per week previously spent on code review.
- Designed and launched a web application to **track verification activities** for hundreds of deployed microservices.
- Implemented an automated solution to identify security vulnerabilities and user-experience flaws, saving **50 work hours** per week.
- Created a chatbot for real-time reporting of ongoing and past verification activities, reducing data retrieval time by **40 work hours** per week.
- Honored with the **"Employee of the Quarter"** award in Q1-FY2021 for exceptional contributions to **new feature development**.

Internships

Pricing Intern — June 2024 – September 2024
Peco Pallet Inc — *New York, United States*

- Implemented custom pipeline for **data cleaning, geocoding, and reporting** using Python and Excel for managing large corporate data.
- Engineered a **one-click solution** for analyzing extensive datasets and generating customized reports to estimate optimal pricing strategies.
- Built the entire application in-house improving data quality and saving over **70%** of the work hours spent in data management.
- Enhances the pricing process and expedites the delivery of pricing by **40%**, increasing the probability of conversion by **25%**.

Summer Intern — May 2019 – July 2019
Western Digital — *Bangalore, India*

- Developed a code-coverage tool for **functional coverage** for firmware verification of removable flash-based storage devices.
- Designed an efficient **data structure and algorithm** to compute and store coverage results within a **50kB on-disk space** constraint.
- Integrated the tool with a **user-friendly interface** to display results and **suggest actions** for test coverage improvement.
- Built the tool in-house, saving an estimated **US $50,000** annually.

Coursework

Algorithms, Cloud Computing, Computer Architecture, Computer Networks, Database Management, Data Structures, Digital Signal Processing, Machine Learning, Object Oriented Programming, Operating Systems, Parallel Computing, Recommender Systems, Software Engineering, VLSI System Design

Certifications

Deep Learning Specialization, Coursera
AWS Fundamentals Specialization, Coursera
TensorFlow in Practice Specialization, Coursera
Machine Learning A-Z™: AI, Python & R, Udemy