

Jay Janodia

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GitHub:

github.com/jayjanodia/

Portfolio:

<https://jayjanodia.netlify.app/>

TECHNICAL SKILLS

- **Languages:** Advanced: Python, MySQL, C# Intermediate: R, MATLAB, Java, Shell Basic: NoSQL, C, C++
- **Libraries:** Pytorch, Tensorflow, Matplotlib, NumPy, Pandas, Scikit-Learn, NLTK, OpenCV, SciPy, Seaborn, SpaCy
- **Web Development:** Advanced: HTML, CSS, JavaScript, PostgreSQL, Flask, WPF, WinForms Intermediate: Bootstrap, TypeScript, Jest, ReactJS, AWS Basic: NodeJS

WORK EXPERIENCE

Sonix | Software Developer | Fairfax, VA

July 2024 - Present

- Led the enhancement of UI functionality, integrating key components and improving transducer list visibility, directly impacting usability for over ~1,500 active enterprise users.
- Architected and implemented comprehensive process guides, aligning cross-functional team objectives with business goals, resulting in a 20-hour monthly productivity increase.
- Spearheaded performance optimizations by refining code logic and enforcing best practices, leading to measurable improvements in system efficiency and maintainability.
- Provided technical mentorship, proactively resolving blockers, optimizing team workflows, and fostering a culture of collaboration and continuous learning.
- Strategically managed task execution, consistently meeting or exceeding deadlines while balancing **critical priorities and cross-team dependencies** to drive project success.

Elegen | LIMS Software Developer | San Carlos, CA

July 2023 - March 2024

- Optimized system performance by implementing REST endpoints, enhancing database structures, and leveraging AWS Lambda to reduce execution times from 30 seconds to a few seconds.
- Delivered client-centric solutions, including efficient gene search features and automated data retrieval for 60 clients using Python, PostgreSQL, and Shell scripting, accelerating results delivery from 10 minutes to a couple of seconds.
- Constructed automated and manual testing strategies that led to 0 critical errors reported over 4 consecutive release cycles, solidifying trust among clients relying heavily on accurate output.

Amazon | Software Development Engineer 1 | Sunnyvale, CA

May 2022 - March 2023

- Improved Amazon Developers' Datapath product using HTML, CSS, JS, React, Java and TypeScript resulting in improved customer experience and increased product stability for ~100,000 users.
- Contributed to the migration process from a proprietary platform to Typescript using Python for automation and GraalVM as a Java VM to run JavaScript and TypeScript code reducing the installation time for the customer from 15-30 minutes to a few seconds.
- Built a Unit-testing module using Shell Scripting and Java based on Jest framework, leading to a 500% reduction in unit testing cycle time for Amazon Developers. Also provided on-call support for the Datapath platform for 6 months, resolving 20+ Sev-2 tickets and 100+ Sev-3 tickets related to product stability using Shell Scripting and Log Monitoring searching through 20GB+ of data.

Tata Consultancy Services | Development Intern(AI Engineer) | Pune, India

Dec 2019 - March 2020

- Automated Service request resolution for infra resource augmentation for demanding workloads reducing the rate of failure by 50%.
- Automated ticket analysis to determine the scope of augmenting and triggering the infra-addition using Python, Ansible and vSphere APIs, leading to reduction in the resolution time from 30 minutes to a couple of minutes.

EDUCATION

Master of Science, Computer Science and Engineering, *Santa Clara University*

March 2022

Bachelor of Engineering, Computer Engineering, *Pune Institute of Computer Technology*

June 2020

- Activities and societies: Member of Institute of Electrical and Electronics Engineers (IEEE).
- Development Volunteer for the PICT IEEE Student Branch (PISB)'s technical event, 'Credenz'.
- Designed the web pages for the competitive coding events, 'Clash' and 'Reverse Coding'.

PROJECT WORK

Multi-Class Multi-Movement Vehicle Counting Using IoT devices (AI City Challenge) Feb 2021 - Oct 2021

- Created an online vehicle counting algorithm and tuned its parameters using Computer vision libraries, Yolov5 Framework for object Detection and Tensorflow, and Pytorch libraries for training the models, reducing the time taken to run the program by 80% while keeping the accuracy intact.
- Reviewed the project outcomes of 5 teams to work on figuring out the most efficient solution with respect to time and accuracy.

Helmet Detection from Real-Time Surveillance Cameras

Jul 2019 - Jul 2020

- Developed a custom object detection model using YOLOv3 framework in Python to determine whether a bike rider is wearing a helmet or not; the model was trained using a dataset of over 10,000 images specifically curated for this purpose.
- Utilized Convolutional Neural Networks (CNN) and YOLOv3 to analyze frames from CCTV footage and accurately detect helmets. The model achieved a testing accuracy of 71.76% through manual testing.

Recipe Prediction

Dec 2020 - Feb 2021

- Applied K-Nearest Neighbors Classifier on textual data containing the description and ingredients of a food item to classify it accurately. The model achieved an F1 score of 88.17% on the testing dataset.
- Streamlined text preprocessing workflows by employing Python libraries (Pandas, Matplotlib) achieving a 30% reduction in data preparation time enhancing the speed of analytical processes.

Certifications

Udemy – Machine Learning A-Z: Hands-On Python & R in Data Science – Udemy (2019), Complete Python Bootcamp: Go from zero to hero in Python 3 - Udemy (2019), Python for Computer Vision with OpenCV and Deep Learning - Udemy (2020).

Coursera – Neural Networks and Deep Learning – Coursera (2019), AI for Everyone - Coursera (2020).

HackerRank – Problem Solving (Intermediate), Python (Basic), Problem Solving (Basic).