Kamaljit Aulakh
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EDUCATION

Syracuse University, College of Engineering and Computer Science, Syracuse, NY,   *August 2023 – May 2025*
Master of Science in Computer Science

Mumbai University, Ramrao Adik Institute of Technology, Mumbai, India   *August 2017 – June 2021*
Bachelor of Engineering in Information Technology   **GPA: 3.74**

EXPERIENCE

Software Engineer, IDFC FIRST Bank Ltd, Bangalore, India   *June 2022 – August 2023*
- Created REST APIs with **Java Micronaut** and **Python Django** for mobile and internet banking for various features, resulting in a 10% increase in opening of zero-balance savings accounts online.
- Led team in making an internal admin panel with **React, Typescript**, and DB operations on **Aerospike** DB.
- Used **Docker, Kubernetes,** and **Helm charts** to build and manage deployment pipelines on GoCD to achieve a 98% uptime in production deployments.

Systems Engineer, Tata Consultancy Services, Thane, India   *October 2021 – June 2022*
- Implemented business logic at various microservices utilizing **Spring MVC** and **Springboot framework**.
- Worked on **React** and **Redux** to integrate various security enhancements on the UI integrating a behavioral biometrics solution (BioCatch), resulting in a 37% increase in true positives in bot detection.

PROJECTS

Cataract detection and classification with Machine learning and Transfer learning   *June 2020 – March 2021*
- Teamed up with two fellow classmates to conduct a comparative study between existing vectorization, machine learning, and deep learning models incorporating **Python libraries** such as Pandas, OpenCV, matplotlib, and Keras, to build a vector most effective in identifying and classifying cataracts.
- Prepared own dataset, followed by preprocessing, feature extraction with SIFT and GLCM algorithms, and hough circle transformation for cropping region of interest, and achieved a validation accuracy of 97.66% through **convolutional neural networks**.
- Research paper presented and published at ICAIAA 2021 (International Conference on Artificial Intelligence: Advances and Applications - Springer).

IoT-based smart farming using Machine Learning Algorithms   *December 2020 – January 2021*
- Designed a system to monitor live farmland, fire, water levels, temperature, and humidity conditions on farm with suitable sensors programmed on **Raspberry Pi** along with a user interface with **Python Flask**.
- Analysis of quality of soil to determine crops that can give higher yields, along with a linear regression model to forecast weather conditions for next day. The results can be notified to the user via Blynk app.

ADDITIONAL EXPERIENCE

Instructor, Ramrao Adik Institute of Technology, Mumbai, India   *June 2021 – November 2022*
- Conducted a three-day workshop session on fundamentals of UI/UX design by **Figma**, followed by frontend development with **Bootstrap** and server-side CRUD operations written with **PHP** and **MySQL**.
- Delivered sessions on deployments in containerized environments with **AWS** and **VMware Tanzu**.

Committee Member, Computer Society of India RAIT student chapter, Mumbai, India   *July 2017 – August 2021*
- Worked in multiple positions during undergraduate years, organizing events, annual technical festival, and leading various teams for sponsorship, publicity, and membership in the committee.
- Held positions of Membership co-head in 2019, Publicity head in 2020, and Vice President in 2021.

CERTIFICATION
- Modern Java - Learn Java 8 features by coding it, Udemy   *October 2021*
- Introduction to Programming using Python, Microsoft Technology Associate   *September 2019*

SKILLS
- **Technical Skills:** Java, Python, JavaScript, Docker, Kubernetes, Helm Charts, Prometheus, Elastic Stack, Data Structures and Algorithms, HTML5/CSS3, PHP, Aerospike, MongoDB, SQL, Data Manipulation, and Analytics.
- **Soft skills:** public speaking, time management, presentation, and documentation.
- **Tools**: GoCD, Bamboo, Jira, BitBucket, Jmeter, Grafana, Splunk, Postman, Git, Jupyter Notebooks, IntelliJ.