

Harsh Sanjeev Agarwal

Irvine, California 92617 | harsh.agarwal@uci.edu | 949-293-2605 | linkedin.com/in/harshsagarwal

EDUCATION

University of California - Irvine

Master of Computer Science | CGPA: 4/4

Current Courses: Artificial Intelligence, Advanced Data Structures, Algorithms, Machine Learning & Data Mining

Irvine, CA

Sept. 2022 - Dec. 2023

University of Mumbai

Bachelor's of Technology in Computer Engineering | CGPA: 3.64/4

Relevant Courses: Analysis of Algorithms, Big Data Analytics, Database Management, Distributed Systems

Mumbai, India

Jul. 2017- May 2021

SKILLS

Programming Languages: Java, Python, Kotlin, Dart, C++, JavaScript, HTML/CSS, SQL

Databases: MySQL, Firebase, MongoDB, SQLite

Machine Learning & AI: TensorFlow, Keras, YOLOv3, scikit-learn, Torch, fast.ai, Google Cloud ML kit

Frameworks & Tools: Android Studio, Flutter, Django, Anaconda, Kafka, Docker, Streamlit, Apache Beam

WORK EXPERIENCE

Cable & Wireless Communication Inc.

Internal tools | Software Developer Intern

Miami, FL

Jun. 2023 – Sept. 2023

- Developed a real-time **anomaly prediction model** with stream data from **Kafka**, achieving 74% accuracy in predicting anomalies on CMTS data, reducing downtime by 15% through proactive network adjustment, ensuring higher system reliability
- Configured a **Kafka pipeline** to stream **MongoDB** data, processing over 10,000 records/s, and evaluated KPIs like CER, CCER, power levels, capacity usage, and signal-to-noise ratio

ICICI Lombard GIC Ltd.

IL TakeCare & iPartnerPro | Android Developer

Mumbai, India

Feb. 2021 – Jul. 2022

- Incorporated in-app purchases using **Kotlin**, boosting the revenue by \$1.2M and expanding the user base to 5M downloads
- Developed a **CI/CD pipeline** using Bitbucket for **Android and iOS**, achieving a 33% boost in build speed, cutting testing time by 48%, yielding a remarkable 2-day reduction in deployment duration
- Led a cross-functional team, driving the development of a **flutter** app and deploying it on PlayStore & AppStore, with over 50k downloads in 3 months, showcasing strong market adoption
- Formulated **A/B tests** for UX optimization and increased conversion rate, translating into revenue growth of \$540,000
- Debugged and resolved over 50 production issues, improving app performance to an impressive 98% reliability rate

VPS Techub Pvt. Ltd.

Safal Darshan & A-Helper | Mobile Developer Intern

Mumbai, India

Jun. 2019 – Jan. 2021

- Spearheaded a team in developing two **Flutter** applications, enabling seamless e-booking and integrating Dacast live streaming, yielding a 50% increase in user bookings and a 200% reduction in wait times at temples during Covid-19
- Engineered a **Django** website with a recommendation system, employing collaborative filtering on user behavior data and item similarity metrics for targeted advertisements, resulting in improved conversion rates
- Built a native **Android** application to book trained service professionals and embedded an **OCR** model to orchestrate automated identity verification without requiring manual intervention

PROJECTS

CryptoBud (Crypto Arbitrage Platform) | Python, Beam, Docker, Streamlit

Jan. 2023 - Jul. 2023

- Co-founded CryptoBud, a cryptocurrency arbitrage platform, and developed a streamlit dashboard offering market analysis and portfolio management tools
- Leveraged **Kafka streams** for real-time data processing and **Docker** containerization, facilitating prompt identification of arbitrage opportunities and seamless execution of trades

Customer Adaptive Automated Trading System | Deep Learning, Algorithmic Analysis, Python

Jun. 2020 - Mar. 2021

- Conducted web scraping with **BeautifulSoup** to collect financial reports and news articles for sentiment analyzer training
- Executed comprehensive **backtesting** to assess trading strategy viability and evaluated PnL for algorithm profitability
- Built a **Fuzzy logic** neural net for personalized strategies and utilized a 92% accurate **LSTM model** for portfolio prediction

Pothole Detection with Automated Complaint Redressal | ML, Computer Vision, Django

Oct. 2019 - Aug. 2020

- Achieved a precision of 0.83 by developing an image-based pothole detection model using **RetinaNet**
- Created a real-time complaint tracking portal in **Django** and integrated a **SARIMAX** model to prevent future pothole issues
- Published the research and won the 'Best Paper Award' at the ICSPC 2021 conference

LEADERSHIP EXPERIENCE

- Finalist at DevHack 2020, IIT Dharwad, for implementing a Machine Learning system to minimize food waste
- Volunteered in UN's 'Marine Pollution' initiative to clean up beaches and raise awareness about waste management
- Led the prestigious TEDxSPIT 2020 as the Executive Producer to curate talks with influencers from various walks of life