

# Snehal Chaudhari

+1 858-264-6372 | [isnehalchaudhari@gmail.com](mailto:isnehalchaudhari@gmail.com) | [linkedin.com/in/snehal-s-chaudhari](https://www.linkedin.com/in/snehal-s-chaudhari) | [snehalchaudhari98.github.io](https://snehalchaudhari98.github.io) | [GitHub](#)

## EXPERIENCE

### Graduate Research Assistant

Aug 2023 - May 2024

Arizona State University

Tempe, AZ

- Collaborated with MLCcommons and NASA Harvest to design globally diverse benchmarking datasets for crop field boundaries using DataPerf standards.
- Designed a pipeline for creating and matching stratified samples of crop parcels to standardized EO images, including download, conversion, and patchlet sampling.
- Optimized cross-validation performance on boundaries by 13% with K-fold splits based on morphological characteristics.
- Evaluated baseline models MaskRCNN, Segment Anything Model (SAM), and UNET to achieve a benchmarking accuracy of 61.35% for sparse crop field annotations.

### Software Engineer

Jul 2020 - Jul 2022

Avaya

Pune, India

- Designed and implemented 20+ features for the IP Office (IPO) telephony system using C++ and Java, focusing on call-media management, administration, and system monitoring in different network layers.
- Integrated a standalone softphone app with MS Teams using Python, Angular and K8s, boosting customer engagement by 2.5%.
- Developed a cross-platform mobile application using Flutter and JavaScript for an IPO system; increased administrative efficiency and user engagement for an 18K+ user base.
- Standardized the version control framework using design patterns in Java, streamlining release-specific feature management for the DevOps team.
- Optimized real-time diagnostics log management in containerized apps, reducing cluster maintenance costs and improving system efficiency by 3.7%.

## TECHNICAL SKILLS

**Languages:** C++, Java, Python, C, JavaScript, TypeScript, HTML5, CSS, SQL, D3.js, R.

**Frameworks:** React, Angular, Spring Boot, Django, Flutter, Android SDK, Flask, Next.js.

**Tools and Technologies:** Node.js, Azure, Kubernetes, Docker, Jenkins, MongoDB, GCP, Git, AWS CDK, Tensorflow, Apache Kafka, MATLAB.

## EDUCATION

### Arizona State University

Aug 2022 - May 2024

Master of Science in Computer Science

GPA 3.87/4

### Pune Institute of Computer Technology

Aug 2016 - May 2020

Bachelor of Engineering in Information Technology

GPA 9.58 / 10

## PROJECTS

### Galaxy Classification based on Morphological Orientation | *Python, PyTorch, TensorFlow*

Aug 2023 - Jan 2024

- Proposed a transfer learning-based approach to classify galaxies based on their morphology using existing models such as VGG16, ResNet50, Xception, DenseNet, and InceptionNet.
- Significantly improved classification accuracy by 13.7% compared to the previous architecture.

### VAST 2022 Challenge | *React.js, D3.js, Node.js, python*

Jan 2023 - May 2023

- Implemented an InfoVis system for the VAST challenge using React.js and D3.js to visualize demographic data, networking information, and financial statistics, enabling efficient city planning.
- Optimized handling of anti-colliding force by leveraging React state and Redux stores to reduce graph node loading latency.
- Reduced analysis time by over 31%, contributing to more efficient decision-making with temporal context.

### VoicePay | *pocketsphinx, Rasa, TensorFlow Lite, CMUSphinx, Keras, Java, Node.js, Android*

Nov 2019 - Jan 2020

- Designed a voice-based payment platform that facilitates payments through linguistic commands with NPCI, catering to all specially abled user groups.
- Enhanced speech processing and decreased the response time by 20% by adding support for 9 additional speech dialects.
- Won first prize in the National Payments Corporation of India's hackathon for this prototype in 2020.

### Generating Realistic Voices | *Python, Flask, Keras, TensorFlow, PyTorch*

Jul 2019 - Apr 2020

- Constructed a deep neural network-based model for speech regeneration, utilizing speech models like MelNet and WaveNet to preserve linguistic information from multiple speakers.
- Achieved accuracy of 86.2% using sequence-to-sequence recurrent network (Tacotron 2) by modified vocoders.
- Secured runner-up position in the Machine Learning and Pattern Recognition domain in INC'20 for language processing.

## CO-CURRICULAR ACTIVITIES

- Secured first position in Avaya's GMDP program with 100+ participants for a cross-platform app based on a UC solution.
- Launched a web portal for managing and registering events and activities within the CSI student branch, serving over 1.1k participants.
- Coordinated successful IEEE and CSI events, and guided on-campus seminars as a Technical Committee Member.