

MADHAV SANKAR KRISHNAKUMAR

madhavsankar@g.ucla.edu

Chennai, India

+91 9884850987

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PROFESSIONAL SUMMARY

A **Software Developer** with 5+ years of experience in Full-Stack development. A collaborative developer with strong academic background, extra-academic experiences and indispensable industrial expertise. A 2023 Computer Science graduate of University of California, Los Angeles, interested in large-scale software and cloud solutions development.

PROFESSIONAL SKILLS AND INTERESTS

- **Coding and Technical Skills**
- **Problem-solving**
- **Full-Stack Development**
- **Teamwork and Collaboration**
- **Cloud Computing**
- **Machine Learning**

EDUCATION

Master of Science (Computer Science), University of California, Los Angeles (Los Angeles, CA)

- Expected Graduation Summer of 2023

Bachelor of Technology (with Hons) (Computer Science), National Institute of Technology (Trichy, India)

- GPA: 9.69/10 | Rank: 3/101

Additional Professional Development:

- [Deep Learning Specialization \(Cert. #2BPUMXPXT9B2\)](#) – DeepLearning.AI (2020)
- [Python for Data Science, AI and Development \(Cert. #GBPDNR4362Y6\)](#) – IBM (2020)
- [Game Theory \(Cert. #9SCC42WDHXS7\)](#) - Stanford University (2019)

PROFESSIONAL EXPERIENCE

MICROSOFT

July 2019 – Present

Software Development Engineer

Architect, design and develop large-scale services to simplify customer compliance management.

- **Problem-solving skills:** As part of the [Advanced EDiscovery](#) team of [M365 Security and Compliance](#), led the E2E delivery of the LENS (Legal Enforcement and National Security) solution within six months despite being the only person working on it. The solution is used by [Microsoft CELA](#) for legal enforcement data collection.
- **Full-Stack Development:** Redesigned the admin logs module of the microservice architecture to enable customer aggregation and filtering requirements. Implemented the corresponding UX changes to the [Compliance Portal](#) using typescript and ReactJS.

- **Cloud Computing:** Designed a Azure Cloud Services based [File Connector](#) to import large items from third-party data sources into Microsoft 365 so that compliance solutions can be applied on them, overcoming the current size restriction on the solutions which was preventing several potential customers from moving to [M365 Compliance solutions](#).
- **Collaboration:** Collaborated with [CellTrust](#) partner team as the Microsoft DevRel to onboard the CellTrust SL2 Connectors to the Microsoft Ecosystem.

May 2018 – July 2018

Software Engineer Intern

Enhance the latencies of the first version of the [SharePoint](#) Desktop application.

- **Technical Skill:** Successfully brought down the page load latency by six times and the application boot time by a staggering 42 times with the help of caching techniques and improvements in the Auth flow.

RELEVANT PROJECTS

One World Family Application: Developed an android application with a Django backend that helps to bring volunteers and NGOs together, as part of the Microsoft Hackathon. (2019)

Information Extraction from Financial Documents: Developed a Financial NER with CRFs that achieved an accuracy of 92% in identifying financial key-phrases. Upgraded existing question-generation and answer-extraction modules to incorporate information from Financial NER; ROUGE-L score of answer extraction module increased from 0.909 to 0.969. [\[Paper\]](#) (2019)

ViewPal: An Image Captioning Project: Prototyped a live video captioning model called [ViewPal](#) that extracts information from live video and converts it into a stream of meaningful sentences using PyTorch to aid the visually challenged with a live relay of events around them. (2018)

Distributed Algorithm for the Dispersion of Mobile Robots: Solved the problem of dispersion of 'n' Mobile Robots on an 'n' node ring in presence of two types of dynamism in the underlying graph: (i) vertex permutation and (ii) 1-interval connectivity. [\[Paper\]](#) (2017)

AWARDS AND SCHOLARSHIPS

Microsoft Annual Hackathon - Project shortlisted for implementation (2019)

Government of India - Among the top 25 high school students across the country who were invited to watch the 67th Indian Republic Day Parade as special guests from the Prime Minister's Box. (2015)

Shaastra - 1st / 212 teams at Reverse Coding event at Shaastra, a tech-festival conducted by IIT Madras. (2017)

OTHER RELEVANT INFORMATION

Programming Languages: C/C++ (Advanced), C# (Advanced), Python (Intermediate), JavaScript (Intermediate), Typescript (Intermediate), MySQL (Intermediate)

Tools and Libraries: .NET, Azure Cloud Services, Microsoft Visual Studio, Azure Storage, Docker, Kubernetes, Windows PowerShell, Pytorch, TensorFlow, Keras, Django, ReactJS