

SONALI KESHA MURTHY NAIK

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Contact: +1 (825) 994 1073

PROFILE

- Graduate researcher at University of Calgary in Cloud, Multimedia, Networks domain.
- Two years of work experience as Software Engineer and Summer Intern.
- Experience of working in Cloud Computing, video transcoding, Network, UNIX etc.

EMPLOYMENT DETAILS

Graduate Research Assistant **University of Calgary** **Aug 2020 – Present**

Fulltime MSc student working under Dr Mea Wang and Dr Diwakar Krishnamurthy at University of Calgary in NetMedia System lab: Working on transcoding 360-degree videos distributed using Kubernetes.

Webmaster for Institute for **University of Calgary** **August 2021 – Present**
Quantum Science and Technology.

Parttime-Job to maintain and improve webpage and database applications as identified by a user group and by management. Ensure all internal systems for the webpages and database are integrated. Perform complete testing of webpage and database applications and engaging users as necessary.

Graduate Teaching Assistant **University of Calgary** **Jan 2020 – Dec 2021**

Thought during Fall 2021: CPSC 441 - Computer Networks under Carey Williamson and thought Spring 2021 & Winter 2021: CPSC 217 - Introduction to Computer Science for Multidisciplinary Studies I under John Ayock, James Tam.

Software Engineer **Fidelity Investments, Bangalore** **July 2018 - Sept 2020**

Enterprise Cloud Computing (BU) – Worked on PCF, RKS, EKS. Expertise on Kubernetes. Domain knowledge on cloud computing, networking, Devops (building CI/CD pipelines, API management), Incident management, change management, handle customer issue as an administrative role.

Summer Intern **MAQ Software, Hyderabad** **May 2017- July 2017**

- One Commercial Partner – Developed a software for Microsoft regarding its products and Partner Network using Power BI, SQL Management studio and visual studio.

EDUCATIONAL QUALIFICATIONS

- **MSc in Computer Science** **Sept 2020 – Present**
University of Calgary, **Secured** CGPA: 4.0, Grade: A+
- **B. Tech in Information Technology** **2014 to 2018**
NITK Surathkal, **Secured** CGPA: 8.43
- **All India Senior Secondary School Certificate Examination** **2013 to 2014**
Kendriya Vidyalaya Malleshwaram, **Secured** 91.8%.
- **Secondary School Examination** **2011 to 2012**
Kendriya Vidyalaya Malleshwaram, **Secured** CGPA: 9.2.

TECHNICAL COLLEGE PROJECTS

- **Master's Thesis on Distributed 360° video transcoding in Kubernetes:** Distributed tile-based 360-degree video transcoding in realtime using H265 codec.
- **Convolutional Neural Network Based Automatic Object Detection on Aerial Images:** A 2-stage approach of land classification and object detection implementation using google net architecture & NVIDIA DIGITS server.

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- **Static Analysis of executables for Collaborative Malware Detection on UNIX Systems:** Analysis on function calls on benign and malware executable file and predicted a file is virus or not.
- **Cryptographic File Transfer over Cloud using Smart Card Authentication:** Secure file transfer over Openstack with encryption and decryption and using smart card authentication.
- **Secure PDF Transfer to Raspberry Pi by Proxy Server Using Deep Learning:** A two-way transfer of PDF files, intercept the file packet's by proxy server to detect malware using autoencoder & SVM.
- **Wayfinding Android App for Visually Impaired:** Barcode detection with a personalised map to identify places.
- **Facial Detection and Recognition using RaspberryPi for Intrusion alert:** Training dataset using LBPH for face detection to provide an intrusion alert upon unrecognised faces.
- **Semantic Recommendation system for E-commerce products:** Best mobile phones were recommended based on sentimental analysis of reviews on the product.

PUBLICATIONS & CERTIFICATIONS

- CKA: Certified Kubernetes Administrator 2020.
- AWS Certified Cloud Practitioner 2018.
- Exam AZ-900: Microsoft Azure Fundamentals 2020.
- Intelligent calendar scheduler in IJNLP publications 2016.

AWARDS AND ACCOMPLISHMENTS

- Merit scholarship in Class 10th and received prize money for passing Btech in First Class.
- International Graduate Tuition Award (IGTA) from University of Calgary.
- International Graduate Student Recruitment Award (IGRA) for Fall 2022: is a competitive, program-internal award given to international students with a good record.
- Fully Funded Thesis student at University of Calgary in computer science department.
- Received Departmental Research Award for Winter 2022 for good performance in 2021 research work.
- Achieved Merit Certificate in National Science Olympiad in 2008 and in International Informatics Olympiad.
- Won NITK CUP Inter Collegiate Chess Tournament.
- Member of Women in Technology group (WITSIG) in Fidelity Investments.
- Lightening talk at Grace Hopper Conference (GHC) India 2019 on "A Situation-Based Interactive Virtual Assistant for Visually Challenged".
- Won Eureka Enabler award an innovation challenge conducted in fidelity.

TECHNICAL SKILLS

C++, Java, Concourse, video codecs, FFmpeg, Cloud Foundry, Fly, Kubernetes, Rancher, Bosh, UAA, PingFederate, PHP, HTML, CSS, Bash script, Angular 6, Bootstrap3, Unix commands, Networking, Visual Studio, Wireshark, Eclipses, windows, Linux, Kali Linux.