RESUME

PERSONAL DATA

Name:	Lalith Nag, Sharan Gururaj
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Date, Place-of-Birth:	27.02.1993, Chennai (India)
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I'm a medical systems engineer focused on advancing healthcare through deep learning and computer vision for image guided surgeries.

EDUCATION

Apr 2017 to present — **Master's Degree, M.Sc. in Medical Systems Engineering**
Otto von Guericke University, Magdeburg (Germany)
Specialization: Deep Learning, Computer Vision, Computer-assisted Surgeries & Interventions
Current grade: 1.6/4 (Max.: 1.0, Min. passing: 4.0)

Jul 2010 to May 2014 — **Bachelor's Degree, B.E. in Biomedical Engineering**
Manipal Institute of Technology, Karnataka (India)
Specialisation: Pattern Recognition, Medical Image and Signal Processing
Grade: 8.69/10 (Max.: 10.0, Min. passing: 5.0)

Jun 2008 to May 2010 — **All India Senior Secondary School Certificate**
Central Board of Secondary Education, Chennai (India)
Specialisation: Computer Science, Mathematics, Physics, Chemistry
Grade: 89.6% (Max.: 100%, Min. passing: 33%)

PROJECTS

Apr 2018 to Jul 2018 — **Landmark Detection in Echocardiography**
Automatic segmentation of mitral valve in 3D with CNN using U-Net architecture, with Keras on TensorFlow backend & Python.

Oct 2017 to Jun 2018 — **Depth-mapping for Stereoendoscopy**
Stereo-reconstruction using computer vision techniques from surgical data, implemented using OpenCV libraries on C++.

PROFESSIONAL EXPERIENCE

Oct 2018 to present	**Internship** Cognition Guided Surgery, Heidelberg (Germany) Depth-reconstruction of mitral valve using deep learning for application in mitral valve reconstruction surgery. Frameworks used: Tensorflow, PyTorch, OpenCV
Jan 2018 to Sep 2018	**Student Research Assistant** Otto Von Guericke Universität, Magdeburg (Germany) Support of research in the *Computer Assisted Surgeries* research group; multi-modal registration of MRI & US data, medical visualisation using MeVisLab + python, 3D slicer.
Nov 2014 to Mar 2017	**Manager-Strategy** eHelium Advisory Service Private Limited, Chennai (India) Market analysis, identifying gaps & opportunities in building a scalable online education platform for entry-level talent pool in Indian service sector.
Jan 2014 to May 2014	**Trainee** Institute of Nuclear Medicine & Allied Sciences, Delhi (India) Bachelor thesis on *Cognitive State Assessment using EEG Signals.* Developed a classifier to assess cognitive-state using 14-channel EEG signals in a war-like multi-tasking scenario.
May 2013 to Aug 2013	**Intern, Innovation Think Tank** Siemens Healthineers, Goa (India) Identified pain areas and worked on respective solutions for Siemens Diagnostic product line for the Indian market, as part of a pan-Indian, multi-disciplinary team of 10 engineers.

SKILLS

Programming:	Python (Keras+Tf, PyTorch), C++, OpenCV
Software:	MeVis Lab, 3D Slicer, ParaView, MS Office
Languages:	**English**: Proficient in Speaking, Writing (C2) **Deutsch**: Good in Speaking, Writing (B2) **Tamil**: Native proficiency

Heidelberg, 07.01.2019