

# Siddhartha Kumar

15, Marconigatan 7, 8  
42144 Västra Frölunda,  
Göteborg, Sweden

kumarsi@student.chalmers.se  
+46 76-777 55 34

---

## PROFILE SUMMARY

---

1. Communications engineer with deep interest in Communications Systems (especially in Coding Theory) and Multimedia Communication.
2. Pursuing MSc in engineering at Chalmers, Sweden. Currently working on my thesis (1 year) wherein coding theory is applied to Distributed Storage Systems.
3. Technically proficient in programming languages C, C++ and MATLAB.
4. Was research intern at Chalmers, Sweden, in the field of coding theory for 3 months from december, 2013 onwards.
5. Experience in leading teams on technical projects
  - i. *Speaker Emotion Recognition for HCI* was funded by Government of Karnataka, India
  - ii. *Multimedia Communications over IP Networks*, highly impressed the professor at Chalmers
6. Seeking research oriented roles in the field of Communication systems or Multimedia Communication.

## EDUCATION

---

Chalmers University of Technology  
Sweden

MSc, Communication Engineering  
2013 - 2015 (expected)

Amrita Vishwa Vidyapeetham  
India, CGPA - 8.27/10.00

B.Tech, Electronics & communication Engineering  
2009 - 2013

## LANGUAGES

---

Swedish (basic), English (Fluent), Hindi (Fluent) and French (basic)

## PROJECTS

---

- Speech Modelling, Analysis, Synthesis and Compression
- Video Compression and Coding using Transforms, Subband Filters and Motion Compensation
- Multimedia Communications over IP Networks
- Design and Simulation of Communications over Wireless Fading Channels
- Minimum Distance of Protograph-Based LDPC Convolutional Codes
- Noise Cancellation in Speech

## TECHNICAL EXPERTISE

---

- **Programming Languages:** C, C++
- **Tools:** MATLAB, KiCad, Qucs, L<sup>A</sup>T<sub>E</sub>X
- **Telecommunications:** OFDM, Coding theory, MIMO, Digital communications

## RESEARCH EXPERIENCE

---

- Realisation of efficient encoder for Tail-biting LDPC convolutional codes, Chalmers University of Technology, Sweden December, 2013 - February, 2014
- Speaker Emotion Recognition for Human Computer Interaction, Amrita Vishwa Vidyapeetham, India January, 2013 - June, 2013
  - Achieved recognition rate of 54.54 %
  - Funded by Karnataka Government, India
- Image Super Resolution using PLS Regression Technique, Amrita Vishwa Vidyapeetham, India November, 2011 - February, 2012

## WORK EXPERIENCE

---

- Professional Assistant, Amrita Vishwa Vidyapeetham, India January, 2013 - May, 2013
  - Course: Digital signal processors and applications (ECE450)
- Industrial Trainee, EMIS, India June, 2011 - July, 2011
  - Aim to increase the efficiency of the production line

## REFERENCES

---

Alexandre Graell i Amat  
Associate Professor  
Department of Signals & Systems  
Chalmers University of Technology

alexandre.graell@chalmers.se  
+46 31 772 1753

Shikha Tripathi  
Professor & Chairperson  
Department of Electronics & Communication  
Amrita Vishwa Vidyapeetham University  
School of Engineering, Bangalore Campus

t\_shikha@blr.amrita.edu  
+91 94 82 219115