

DUSHYANT SHARMA

E-Mail: dsharmaeng@gmail.com

Nationality: British

EDUCATION

PhD - "Speech assessment and characterization for law enforcement applications" 6/2008 – 6/2012
Centre for Law Enforcement Audio Research (CLEAR), Imperial College London

- Carried out subjective experiments (design, data collection and analysis)
 - C-Qual database for speech quality research
- Development of state-of-the art machine learning algorithms
 - Non-intrusive speech quality and intelligibility estimation
 - Non-intrusive CODEC identification and verification
- Development of framework for characterizing various aspects of a degraded speech signal
- Developed multi-dimensional speech quality vocabulary
- Development of a speech corruption toolkit (open source)
- Collaborated with engineers and psychologists.
- Presentations and demos to diverse audiences ranging from non-technical to experts.

MEng - Information Systems Engineering, Imperial College London 2003 - 2007

Specializing in statistical signal processing and software engineering - Honours.

GCE A-Level - Thomas Alleyne's High School 2000 - 2002

Mathematics (A), Physics (A) and Business Studies (A)

WORK EXPERIENCE

Computing Lab Demonstrator, Imperial College London 2008 – 2010

Supported students (groups of 30) with programming in C++, *graded coursework and assignments*.

Content Manager, Imperial College London 2008 - 2010

Managed course content and developed online assessments with the course directors (2 courses).

Partner, SDS Enterprise Canada 2006 - 2008

Formed a partnership during gap year, successfully delivering a *business plan consultancy* for an offshore accountancy operation in India (Taligent Group LLP, Toronto). Carried out feasibility study for electronic engine control (Vectra Canada Ltd, Waterloo).

Internship, Ernst & Young London July – September 2006

Worked with IT Risk and Assurance group. Gained experience in corporate network security management (social engineering and ethical hacking). Worked in a *client-facing role* with a team on the audit of a listed company. Took active part in client meetings and analyzed IT compliance.

Undergraduate Research Program (UROP), Imperial College London July – September 2005

Worked with Dr. George Constantinides (Digital Systems research group) on "*implementing algorithms in hardware*". Implemented the Simplex algorithm into C++. Demonstrated effective time management and problem solving skills.

Internship, Vectra Canada Ltd, Waterloo June – September 2004

Worked with the design team as a junior electrical systems engineer. Gained insight into construction equipment design and development consultancy. Worked independently on the integration and testing of electrical systems on a prototype backhoe loader.

AWARDS & ACHIEVEMENTS

Postgraduate Department Representative	2009 – 2010
Responsible for communicating student issues to the academic board.	
PhD Studentship award (CLEAR)	2008 – 2012
4 years full scholarship from UK Home Office.	
IBM Business Challenge (regional finals)	2006
Undergraduate Department Representative	2004 – 2005
Representative for 150 students. Organized social events for new students. Resolved issues with exams and coursework. Organized free mediation and stress relief sessions.	
Gold Crest Award (Engineering Education Scheme)	2001
Young Enterprise Scheme company Finance Director	2000 - 2001
Young Engineers Finals (Millennium Dome)	2000
Second position in Young Inventor's competition	1999

SKILLS & INTERESTS

Programming	C/C++, HTML, MATLAB, PHP and Visual Basic
Languages	Hindi/English (Native) and Spanish (Beginner)
Sport & Music	Cricket (played in school team), badminton and squash. Indian classical music therapy (3 month course at Vaitharna music academy in India).

PUBLICATIONS

8 peer-reviewed publications; 5 first author publications.

Invited paper: Dushyant Sharma, Gaston Hilkuysen, Nikolay D. Gaubitch, Patrick A. Naylor, Mike Brookes and Mark Huckvale, "Data Driven Method for Non-Intrusive Speech Intelligibility Estimation", European Signal Processing Conference (EUSIPCO), Denmark, August 2010.

PRESENTATIONS

"Short-Time Objective Assessment of Speech Quality", European Signal Processing Conference, Spain, 8/2011.

"Copy Synthesis Technology at CLEAR Labs", International Communications & Digital Forensics Seminar, UK, 3/2011.

"Validating PESQ with the C-Qual Database", AES Forensics Conference, Denmark, 6/2010.

"Non-Intrusive Intelligibility Estimation", European Signal Processing Conference, Denmark, 8/2010

Invited talk: "Speech Quality in Noise", Workshop on Intelligibility and Quality of Speech in Noise, UK, 1/2009

CLEAR project-review seminars (technical and project management presentations to a group of 20 consortium delegates), September (2009, 2010) and March (2009, 2010, 2011).

REFERENCES

Available upon request.