VISHAL AGARWAL

CONTACT

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EDUCATION

University of Wisconsin Madison (UW-Madison) *2016-Present*
Pursuing Masters in Computer Science

Indian Institute of Technology Bombay (IIT-B) *2012-2016*
Bachelor of Technology in Computer Science with Honours
GPA: 9.49/10.0

RESEARCH

Image-based CAPTCHAs | *Undergraduate Thesis, Prof. Ajit Rajwade* *2015-2016*
· Designed a new point tracking based image CAPTCHA using rigged 3D models
· Currently in the process of filing a patent

Diffusion MRI Reconstruction | *Research Project, Prof. Suyash Awate* *2015-2016*
· Used dictionary learning and sparse coding techniques for efficient and accurate reconstruction
· Resulted in a publication

PUBLICATION

Kratika Gupta, Deepali Adlakha, Vishal Agarwal and Suyash Awate. Regularized dictionary learning with robust sparsity fitting for compressed sensing multishell HARDI. Accepted at CDMRI - MICCAI Workshop on Computational Diffusion MRI, Oct 2016. *(podium presentation)*

PROFESSIONAL EXPERIENCE

Amazon Development Centre *Summer 2015*
· Enhanced the address labelling algorithm to successfully identify all the localities from an address, this resulted in a 12% increase in the validation rate
· Received a Pre Placement Offer after successful completion of the project

Google Summer of Code, *Web Tracking Extension for CiviCRM* *Summer 2015*
· Integrated the web tracking features offered by Google Analytics with CiviCRM
· Designed and implemented Event tracking, A/B testing and E-Commerce tracking

SCHOLARSHIP

Guaranteed 50% TA appointment and special CS scholarship from UW-Madison for a period of 4 years

TEACHING

Teaching Assistant for Machine Organization and Programming at UW-Madison *Present*

Teaching Assistant for Compilers and Computer Architecture at IIT-B *Spring 2016 & Fall 2015*

ACADEMIC PROJECTS

Smart Music Controller for Cars | *Embedded Systems* *Spring 2016*
· Used speech/music discrimination techniques to automatically switch the radio channel
· Automatic volume adjustment, the volume adjusts according to the amount of noise in the car

Video Stabilization | *Computer Vision* *Spring 2016*
· Smoothing the sequence of affine transformations estimated via SIFT point matching

Compiler Implementation | *Implementation of Programming Languages* *Spring 2015*
· Developed a compiler for a C like language using Flex and Bisonc++
· Supported control statements, function calls and function overloading

KEY COURSES

CS Electives: Machine Learning, Computer Vision, Mobile Computing, Algorithms for Medical Image Processing, Computer Graphics

CS Core: Compilers, Operating Systems, Artificial Intelligence, Computer Architecture, Database and Information Systems, Computer Networks, Data Structures and Algorithms

TECHNICAL SKILLS

Programming Languages: C/C++, MATLAB, Java

Miscellaneous: MySQL, LaTeX, HTML