Shashwat **Verma**

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Embedded Systems Engineer

Personal statement Student of Embedded System specialising in Networking and Software, at Technical University of Delft. I want to pursue my further career in embedded software development.

Interests. Embedded programming, inter-device communications, Real-time OS.

Education

Sep 2015 – Feb 2018 (expected)	**Master of Science (MSc)** in Aerospace Engineering, *Technical University of Delft* (TUD), The Netherlands Master Track : Aerodynamics, Relevant course work : Flow measurement techniques, experimental simulation, Race car aerodynamics Extra-curricular : Aerodynamics engineer at student team Eco-runner Delft.
Aug 2011 –July 2015	**Bachelor of Technology**, *SRM University* , Chennai, India Automobile Engineering Volunteer at Green Nest for under-privileged children education

Work Experience

April 2011
March 2011
title, **company**, China
title, Department
detail.
keyword : Eclipse Android

October 2004
Aguest 2004
Design, **Apple**, USA
Design apple 4.
Technologies : Art.

Projects

April 2017
Present
Geometrical optimisation for cylinder drag reduction in constrained space, TU Delft, MSc Thesis
- Fundamental research on *two-dimensional cylinder flow*.
- Geometry design of wind tunnel models by *2-D flow analysis* using *XFOIL* .
- Drag quantisation by control volume approach using *PIV* technique in wind tunnel test.
- Reconstruction of Pressure from velocity field by numerical solution of Poisson equations.

Wind tunnel testing | Particle Image Velocimetry (PIV) | Davis | MATLAB | Solidworks | XFOIL

Sept 2016
Aug 2017
Eco-runner Team, Delft, Student team participating in shell Eco-marathon
- Extract the spatio-temporal features and obtain ”Bag of words” represetation by clustering (k-means) the extracted features;
- Infer the posterior by pLSA/LDA (unsupervised Learning) or by simple classfications (KNN, SVM);
- Propose a simple method called ’voting’ to achieve multiple actions recogintion task.
- : github.com/huajh/action_recognition

Wind tunnel testing | Oil layer visualisation | Xflow CFD | Flow control techniques | MATLAB | Team work

Feb 2016
April 2016
Research Intern, University of Southampton, Southampton, UK
- Apply the GMM, student-t mixture model, and Dirichlet process based infinite mixture modelto the brain MR image clustering problem;
- Derive the detail variational Bayesian inference process.
- Improve these three algorithms by using laplacian graph (manifold learning);
- : github.com/huajh/variational_bayesian_clusterings

Write the skills here

Nov 2012 – Jul 2012

Advance side-impact protection system, SRM University, Bachelor Thesis

- Responsible for the maintenance and development of Princeton Financial Systems.
- As well as in charge of improving the performance of the system by integrating new technologies.

C/C++ programming | C performance optimization | portfolio

Jul 2012 – May 2011

Member of project team, Institute of intelligent systems, ZJUT

- Oct 2011-May 2012, write a paper *Traffic routing algorithm based on the spatial complex networks*;
- May-Sep 2011, work on the project : *Motion Sensing PPT based on Kinect* | *Programmer*.

complex networks | kinect | C#

Dec 2011 – Oct 2011

Tiny Software development, ZJUT, C/C++/JAVA

- Oct-Dec 2011, *Online Works Show Platform* | *Leader*. I designed and implemented a lightweight relational object JDBC package, which is used for the programming of the server. Got the 2nd place of the contest judged by the TaoBao UED. : github.com/huajh/showplatform
- Nov 2011, *Unix File System* | *Independent developer*. The system is implemented by the C/C++. It has basic shell commands, well performed memory management, as well as the users management, and it supports parallel operation. : github.com/huajh/unix_file_sys

JAVA | Unix | software development | Database | Sql Server

Skills

Programming Skills : C, C++, Python, Matlab, SQL, Git, Java.

Embedded Programming : *master in* Embedded C for micro-controllers (ATMEGA, PIC, etc.).
familiar with most STM controllers and other resource constrained platforms.
familiar with Real-time Operating System.

Android development *understanding of* application development with time constrained scenarios and native environment.

Computer Vision : *have a certain understanding of* image processing (segmentation, classification, etc.), video analysis (object recogintion, tracking, etc.).

Languages

English : Reading ●●●●● Listening ●●●●● Speaking ●●●●○

Hindi : native

Interests

Swimming, sketching, cooking, bowling