AJAY VISHWANATH

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EXPERIENCE

Nanyang Technological University   April 2018 - Present
Research Associate

· Working on social robots, virtual characters and affective computing
· Associated with Institute for Media Innovation and Dauwels Lab
· Conducted studies on human-robot interaction, human-avatar interaction and emotion perception
· Co-supervised students and interns on thesis titles ranging from social signal processing, 3D computer graphics animation, and, software engineering
· Developed software to deploy a social robot in an insurance company

Dunst Consulting LLC.   June 2015 - June 2016
Backend Developer

· Developed the back-end of web and mobile applications using JavaScript and NoSQL, a template of the code can be found here
· Deployed these applications in virtual machines
· Designed the database architecture and network communication protocol

Tata Consultancy Services Ltd.   July 2013 - May 2015
Assistant Systems Engineer

· Developed a Product Information Management (PIM) software using a Java-based an SAP e-Commerce tool called HYBRIS
· Enhanced websites (BIGW, Dan Murphys and Masters) for Woolworths Ltd., using Java-based BLUE-MARTINI framework
· Supported a middle-ware integration system based on webMethods

EDUCATION

National University of Singapore   *July 2016 - January 2018*
M.Comp., Computer Science
Specialization in computer vision and machine learning
Dissertation: *Real-time Action Hand Detection from Ego-centric Depth Sequences*

Manipal University   *July 2009 - May 2013*
B.E., Electronics and Communication Engineering
Manipal, India

PUBLICATIONS

- A. Vishwanath, et. al., Robot co-workers: How is it like to work with a robot?, **Acceped**, The 28th IEEE International Conference on Robot & Human Interactive Communication, PsyArXiv., `https://doi.org/10.31234/osf.io/524nx`

- E. Baka, A Vishwanath, et al., Am I talking to a human or a robot?: A preliminary study of humans perception in human-humanoid interaction and its effects in cognitive and emotional states, Computer Graphics International, 2019

SKILLS

Programming Languages	C/C++, Python, Java, JavaScript, Bash, C#
Software & Tools	Unity, OpenCV, TensorFlow, scikit-learn, MatplotLib, LaTeX
Web Technologies	HTML5, CSS3, D3JS, NodeJS, MongoDB

RELEVANT COURSES (MASTERS)

Core Courses	**Other Courses**
Computer Vision & Pattern Recognition	Uncertainty Modeling in AI
Deep Learning & Neural Networks	AI Planning & Decision Making
Art of Computer Science Research	Simulation & Modeling Techniques

INTERNSHIPS

Agency for Science, Technology and Research (A*STAR)   January 2017 - December 2017
Graduate Research Intern

· Worked on machine learning for computer vision: action detection and pose estimation based projects at Bioinformatics Institute (BII) for Master's dissertation
· Developed and enhanced machine learning algorithms based on random forests and convolutional neural networks
· Data acquisition and processing pipeline for a first person vision system
· **Application**: *Drone control using hand gestures*

Instant Edge - The Enterprise Transformation Platform   September 2016 - January 2017

· Developed front-end using the data visualization framework D3JS
· Enhanced CSS and JavaScript based code for modern look-and-feel and cross-browser compatibility

SmartShehar   September 2014 - January 2014

· Built a mobile-friendly web application to perform a preliminary ADHD assessment on children
· Technologies used were PHP, JQuery Mobile, HTML and CSS

OTHERS

Hobbies: Running, avid reader of non-fiction, football, discussing philosophy.

References will be provided on request.