Rahul Islam

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ACADEMIC INTEREST

Affective Computing, Machine Learning, Computer Vision, Cognitive Science

EDUCATION

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY | Guwahati, India
B.Tech | Computer Science
CPI : /10

PUBLICATION

PAPER

1. Utkarsh Dwivedi, Karan Ahuja, **Rahul Islam** , Seema Nagar, Ferdous Barbhuiya, and Kuntal Dey. "EyamKayo: Interactive Gaze and Facial Expression Captcha." In Proceedings of Intelligent User Interface (IUI) (2016).(Submitted)

2. Karan Ahuja, **Rahul Islam** , Ferdous Barbhuiya, and Kuntal Dey. "A Preliminary Study of CNNs for Iris and Periocular Verification in the Visible Spectrum." In Proceedings of 23nd International Conference on Pattern Recognition (ICPR) (2016). (To be appear)

3. **Rahul Islam** , Karan Ahuja, Sandip Karmakar, and Ferdous Barbhuiya. "SenTion: A framework for Sensing Facial Expressions." arXiv preprint arXiv:1608.04489 (2016).

JOURNAL PAPERS

1. Karan Ahuja, **Rahul Islam** , Ferdous Barbhuiya, and Kuntal Dey. "CNNs for Ocular Smartphone-Based Biometrics." Pattern Recognition Letters Journal (PRL) (2016).(Journal) (Submitted)

EXPERIENCE

COMPUTER VISION AND BIOMETRICS LAB | Founding Member
Jan 2016 – Present | IIIT Guwahati, India
I am a founding member of the Computer Vision and Bio-metrics Lab at IIIT Guwahati. where my research focuses in reducing friction between man and machine by exploiting techniques of cognitive science, affective computing , machine learning and computer vision.

UE HCI LAB, IIT GUWAHATI | Project Fellow
May 2016 – Jul 2016 | Guwahati, India
- Phabricator is used daily by Facebook, Dropbox, Quora, Asana and more.
- I created the Meme generator, the entire Lipsum application, ported Tokens to different apps, fixed many bugs and more in PHP and Shell.
- Led a team from MIT, Cornell, IC London and UHelsinki for the project.

BRAHMAPUTRA INNOVATIVE SOLUTIONS | Software Engineering Intern
May 2015 – Dec 2015 | Guwahati, India
- Worked on a document management system in primarily vanilla Javascript and Python to plan, design and develop the full stack implementation of a new framework to add and edit Automatic Speech Recognition captions.
- Created a backbone.js-like framework for the Captions editor.
- All code was reviewed, perfected, and pushed to production.

RESEARCH

COMPUTER VISION AND BIOMETRICS LAB | Research Assistant
Jan 2016 – Present | IIIT Guwahati, India

I am a founding member of the Pattern Recognition and Bio-metrics Lab at IIIT Guwahati. where my research focuses in reducing friction between man and machine by exploiting techniques of cognitive science, affective computing , machine learning and computer vision.

IIIT GUWAHATI | Undergraduate Researcher
Aug 2014 – Dec 2015 | Guwahati, India
Worked with Dr. Ferdous Ahmed Barbhuiya to create TweeSpamAssgin, a tool to detect spam on online social media. Also worked on cryptographic key generation using PUF data.

PROJECTS

IRIS RECOGNITION IN VISIBLE SPECTRUM | May 2016 – Jul 2016
With Dr. Ferdous Ahmed Barbhuiya
- As a part of the project we are investigating state of the art iris recognition system using Near Infrared Camera
- We are trying to answer: Iris recognition in NIR is well established. Can we approach that baseline in visible spectrum?
- We are also exploring possible application of iris recognition in biometric based access control systems.

FACETENSOR : FACE EXPRESSION ANALYSIS | May 2016 – Jul 2016
With Dr. Sandip Karmakar
- As a part of project we investigated state of the art facial expression recognition system
- We proposed a system that exploits geometric feature of face to detect facial expression
- Build a system that beats present state of the art system

TWEESPAMASSASSIN: SPAM DETECTION ENGINE IN OSNS | May 2016 – Jul 2016
With Dr. Ferdous Ahmed Barbhuiya
- As a part of the project we are investigating state of the art iris recognition system using Near Infrared Camera
- We are trying to answer: Iris recognition in NIR is well established. Can we approach that baseline in visible spectrum?
- We are also exploring possible application of iris recognition in biometric based access control systems.

SLANG: NATIVE LANGUAGE WRITER | May 2016 – Jul 2016
- As a part of the project we are investigating state of the art iris recognition system using Near Infrared Camera
- We are trying to answer: Iris recognition in NIR is well established. Can we approach that baseline in visible spectrum?
- We are also exploring possible application of iris recognition in biometric based access control systems.

SPECIFIC SKILLS
- Machine Learning and Computer Vision
  - OpenCV, Sci-Kit, Dlib, Theano
- Programming
  - Python, C++, C , Java
- Database
  - MongoDB, MySQL
- Web Technology
  - HTML, CSS, JavaScript, NodeJS, AngularJS, CardovaJS
- Others
  - Android Development (Native and Hybrid Both), Full Stack JavaScript, Git, openMP, Photoshop

REFERENCES

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