

A. Azfar, K. K. R. Choo and L. Liu, "An Android Social App Forensics Adversary Model," *2016 49th Hawaii International Conference on System Sciences (HICSS)*, Koloa, HI, 2016, pp. 5597-5606.

doi: 10.1109/HICSS.2016.693

Abstract: Android forensics is one of the most studied topics in the mobile forensics literature, partly due to the popularity of Android devices and apps. However, there does not appear to have a formal model that captures the activities undertaken during a forensic investigation. In this paper, we adapt a widely used adversary model from the cryptographic literature to formally capture a forensic investigator's capabilities during the collection and analysis of evidentiary materials from mobile devices. We demonstrate the utility of the model using five popular Android social apps (Twitter, POF Dating, Snapchat, Fling and Pinterest). We recover various information of forensic interest, such as databases, user account information, sent-received images, profile pictures, contact lists, unviewed text messages. We are also able to determine when a notification was sent, a tweet was posted, as well as identifying the Facebook authentication token string used in the apps.

keywords: {Android (operating system);cryptography;digital forensics;mobile computing;social networking (online);Android devices;Android social app forensics adversary model;Facebook authentication token string;Fling;POF Dating;Pinterest;Snapchat;Twitter;cryptographic literature;mobile devices;mobile forensics;Adaptation models;Androids;Databases;Forensics;Mobile communication;Smart phones;Twitter},

URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7427881&isnumber=7427173>

N. Poh, R. Blanco-Gonzalo, R. Wong and R. Sanchez-Reillo, "Blind subjects faces database," in *IET Biometrics*, vol. 5, no. 1, pp. 20-27, 3 2016.

doi: 10.1049/iet-bmt.2015.0016

Abstract: Using your face to unlock a mobile device is not only an appealing security solution, but also a desirable or entertaining feature that is comparable with taking selfies. It is convenient, fast, and does not require much effort. Nevertheless, for users with visual impairments, taking selfies could potentially be a challenging task. In order to study the usability and ensure the inclusion of mobile-based identity authentication technology, the authors have collected the blind-subject face database (BSFDB). Ensuring that technology is accessible to disabled people is important because they account for about 15% of the world population. The BSFDB contains some 40 individuals with visual disabilities who took selfies with a mock-up mobile device. The database comes with four experimental protocols which are defined by a dichotomy of two controlled covariates, namely, whether or not a subject is guided by audio feedback and whether or not he/she has received explicit instructions to take the selfie. The findings suggest the importance of appropriate design of human computer interaction as well as alternative feedback design based on the audio cue. All the data is available online including more than 70, 000 detected face images of blind and partially blind subjects.

keywords: {authorisation;biometrics (access control);database management systems;face recognition;mobile computing;BSFDB;alternative feedback design;audio cue;blind subjects faces database;face recognition technology;mobile-based identity authentication technology;mock-up mobile device;security solution},

URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7414641&isnumber=7414636>

G. D. Dalvi and D. G. Wakde, "Facial images authentication in visual cryptography using sterilization algorithm," *2017 2nd International Conference for Convergence in Technology (I2CT)*, Mumbai, 2017, pp. 951-955.

doi: 10.1109/I2CT.2017.8226269

Abstract: Security is a vital issue to be taken care of and to be experienced with different perspectives and preventive measures. In the present time, entire web is coming nearer from content information to mixed media information. One of the real security concerns is the insurance of this sight and sound information. Picture, which covers the most noteworthy rate of the media information, its assurance is essential. These might incorporate Military Secrets, Commercial Secrets and Information of people. This can be accomplished by visual Cryptography. It is one sort of picture encryption. In current innovation, the greater part of visual cryptography is implanted a mystery utilizing various shares.

keywords: {cryptography;face recognition;message authentication;security of data;facial images authentication;mixed media information;picture encryption;sound information;sterilization algorithm;visual cryptography;Authentication;Color;Databases;Encryption;Visualization;Pixel-Sharing;Sterilization Algorithm;Visual Cryptography},

URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8226269&isnumber=8226083>

A. Larcher, J. F. Bonastre and J. S. D. Mason, "From GMM to HMM for embedded password-based speaker recognition," *2008 16th European Signal Processing Conference*, Lausanne, 2008, pp. 1-5.

Abstract: Embedded speaker recognition in mobile devices involves a limited amount of computing resource but also is linked with several ergonomic constraints. For example both the enrolment and the test have to be done using short audio sequences. Even if they proved their efficiency in more classical situations, GMM/UBM based systems show their limits in this context. This paper deals with this problem and proposes to take into account the linguistic nature of the speech material inside the GMM/UBM framework. The proposed solution mixes the text-independent aspects of the GMM/UBM with a semi-continuous like approach in order to deal with the text-dependent information. This system respects both the resource and the ergonomic constraints of the considered application field. The preliminary experiments are done on the publicly available database ValidDB and show the potential of the proposed approach. Particularly, when compared to the GMM/UBM, our approach decreases drastically both the computational cost and the equal error rates when impostors don't know the user passwords. For other situations the performance remains comparable between both approaches.

keywords: {Gaussian processes;ergonomics;hidden Markov models;message authentication;mixture models;mobile computing;speaker recognition;GMM-UBM framework;Gaussian mixture model;HMM;PASSWORD-BASED SPEAKER RECOGNITION;ValidDB database;computational cost;equal error rates;ergonomic constraints;hidden Markov model;mobile devices;semi continuous like approach;text-dependent information;text-independent aspects;universal background model;Acoustics;Adaptation models;Computational modeling;Hidden Markov models;Noise measurement;Speaker recognition;Speech},

URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7080417&isnumber=7080220>

S. L. Wijaya, M. Savvides and B. V. K. Vijaya Kumar, "The effect of low-bit rate JPEG2000 wavelet images on face authentication using advanced correlation filters," *Conference Record of the Thirty-Eighth Asilomar Conference on Signals, Systems and Computers, 2004.*, 2004, pp. 592-596 Vol.1.

doi: 10.1109/ACSSC.2004.1399202

Abstract: One approach in performing face recognition on mobile devices, due to its limited computational resources is to transmit the

captured face images using the mobile phone connection and run the verification on a remote station. It may be necessary to transmit a compressed version of the image due to limitations in the communication bandwidth. This paper proposes the use of JPEG 2000 wavelet based image compression standard to compress the face images to very low bit-rates for transmission over the low-bandwidth communication channel. At the receiver end, the face images are reconstructed using a JPEG2000 decoder and fed into the verification algorithm. We explore the performance of advanced correlation filters like the minimum average correlation energy (MACE) filter and its variants using face images captured in different illumination conditions and encoded using different bit-rates under the JPEG2000 wavelet encoding standard. Evaluation of the performance of such filters is done using illumination variations from the CMU pose, illumination, and expression (PIE) face database. We demonstrate the tolerance of such filters to noisy versions of such images with variations in illumination condition.

keywords: {code standards;correlation methods;decoding;face recognition;filtering theory;image coding;image reconstruction;message authentication;mobile handsets;telecommunication channels;transform coding;visual databases;wavelet transforms;JPEG 2000 wavelet image compression standard;JPEG2000 decoder;MACE filter;advanced correlation filters;face authentication;face database;face recognition;image reconstruction;low-bandwidth communication channel;minimum average correlation energy filter;mobile devices;receiver end;verification algorithm;Authentication;Bandwidth;Face recognition;Filters;Image coding;Lighting;Mobile communication;Mobile computing;Mobile handsets;Transform coding},

URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1399202&isnumber=30419>

V. Espinosa-Duro, "Minutiae detection algorithm for fingerprint recognition," *Proceedings IEEE 35th Annual 2001 International Carnahan Conference on Security Technology (Cat. No.01CH37186)*, London, 2001, pp. 264-266.

doi: 10.1109/2001.962842

Abstract: Amongst the main innovation prospects within the so called information society, and in the framework of future communications systems, we find the design of database-access integral services, e-commerce and communication systems, together with remote control of terminals and devices, are all the result of global services derived from last generation integration of mobile telephony and Internet. Some features stand out from such future services: security (guaranteeing user privacy while in operation) and naturalness in human-machine interaction, thus offering the same degree of spontaneity found in human communication through speech. In order to deal with security problems, the use of biometric-based technology (specifically through face, fingerprint and speech) is proposed, as those technologies have now reached a high degree of maturity so as to allow successful application on secure authentication. The paper describes the design and implementation of a minutiae extraction algorithm for fingerprint identification systems. The final goal will aim to integrate the fingerprint recognition system with a face recognition system developed and presented at ICCST'00

keywords: {data privacy;feature extraction;fingerprint identification;image recognition;message authentication;Internet;biometric identification systems;biometric-based technology;database-access integral services;e-commerce;face recognition system;fingerprint identification systems;fingerprint recognition;future communications systems;global services;human communication;human-machine interactions;information society;minutiae detection algorithm;minutiae extraction algorithm;mobile telephony;remote control;secure authentication;security;security problems;user privacy;Communication system control;Communication system security;Control systems;Detection algorithms;Fingerprint recognition;Internet telephony;Spatial databases;Speech;Technological innovation;Web and internet services},

URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=962842&isnumber=20784>

"[Title page]," *2015 International Conference on Futuristic Trends on Computational Analysis and Knowledge Management (ABLAZE)*, Noida, 2015, pp. 1-1.

doi: 10.1109/ABLAZE.2015.7155050

Abstract: The following topics are dealt with: vibration signal based monitoring; mechanical microdrilling; rule based inflectional urdu stemmer usal; rule based derivational urdu stemmer usal; fuzzy logic controller; heat exchanger temperature process; text dependent speaker recognition; MFCC; SBC; multikeyword based sorted querying; encrypted cloud data; communication understandability enhancement; GSD; parsing; input power quality; switched reluctance motor drive; externally powered upper limb prostheses; program test data generation; launch vehicle optimal trajectory generation; misalignment fault detection; induction motors; current signature analysis; vibration signature analysis; wind power plants; vortex induced vibration; mechanical structure modal analysis; machining parameter optimization; diesel engines; high speed nonvolatile NEMS memory devices; image fusion; RGB color space; LUV color space; offline English character recognition; human skin detection; tumor boundary extraction; MR images; OdiaBraille; text transcription; shadow detection; YIQ color models; color aerial images; moving object segmentation; image data deduplication; iris recognition; two-stage series connected thermoelectric generator; education information system; cyclone separator CFD simulation; imperfect debugging; vulnerability discovery model; stochastic differential equation; cloud data access; attribute based encryption; agile SCRUM framework; PID controller optimisation; hybrid watermarking technique; privacy preservation; vertical partitioned medical database; power amplifier; software reliability growth modeling; cochlear implantation; cellular towers; feedforward neural networks; MBSOM; agent based semantic ontology matching; phonetic word identification; test case selection; MANET security issues; online movie data classification; modified LEACH protocol; mobile ad hoc networks; virtual machine introspection; task scheduling; cluster computing; image compression; green cloud computin- ; critical health data transmission system; irreversible regenerative Brayton cycle; task set based adaptive round robin scheduling; database security; heterogeneous online social networks; aspect oriented systems; IP network; MPLS network; DBSCAN algorithm; VANET; self-organizing feature map; image segmentation; enzyme classification; wireless sensor networks; energy smart routing protocol; adaptive gateway discovery mechanism; heuristic job scheduling; AODV based congestion control protocol; expert system; home appliances; relay node based heer protocol; data storage; TORA security; data aggregation; low energy adaptive stable energy efficient protocol; fuzzy logic based clustering algorithm; hybrid evolutionary MPLS tunneling algorithm; English mobile teaching; eigenvector centrality; genetic algorithms; data mining; heart disease prediction; lossless data compression; reconfigurable ring resonator; triple band stacked patch antenna; energy based spectrum sensing; cognitive radio networks; FPGA; knowledge representation; multiband microstrip antenna; Web indexing; HTML priority system; Web cache recommender system; e-learning; IT skill learning for visual impaired; user review data analysis; software up-gradation model; software testing; Web crawlers; secret key watermarking; WAV audio file; SRM drive; ZETA converter; fractional PID tuning; medical image reconstruction; speech recognition system; video authentication; digital forensics; content based image retrieval; image classification; hybrid wavelet transform; facial feature extraction; RBSD adder; smart home environment; generalized discrete time model; We Chat marketing; foreign language learning; carbon dioxide emission mitigation; power generation; smartphone storage enhancement; and virtualization.

keywords: {Brayton cycle;IP networks;adders;aspect-oriented programming;audio watermarking;biomedical MRI;cardiology;character recognition;cloud computing;cochlear implants;cognitive radio;computational fluid dynamics;computer science education;content-based retrieval;cryptography;cyclone separators;data analysis;data compression;data mining;data privacy;diesel engines;differential equations;digital forensics;domestic appliances;drilling;educational administrative data processing;eigenvalues and eigenfunctions;enzymes;expert systems;face recognition;fault diagnosis;feature extraction;feedforward neural nets;field programmable gate arrays;fuzzy control;genetic algorithms;grammars;green computing;handicapped aids;heat exchangers;home computing;image classification;image coding;image colour analysis;image fusion;image reconstruction;image retrieval;image segmentation;image watermarking;indexing;induction motors;internetworking;iris recognition;knowledge representation;linguistics;medical image processing;microstrip antennas;mobile learning;modal analysis;nanoelectromechanical devices;object detection;ontologies (artificial intelligence);pattern clustering;power amplifiers;power supply quality;program debugging;program testing;radio spectrum management;recommender systems;reluctance motor drives;resonators;routing protocols;scheduling;self-organising feature maps;social networking (online);software reliability;speaker recognition;speech processing;storage management;telecommunication congestion control;thermoelectric conversion;three-term control;trajectory optimisation (aerospace);tumours;vehicular ad hoc networks;vibrations;video signal processing;virtual machines;virtualisation;wavelet transforms;wind power plants;wireless sensor networks;AODV based congestion control protocol;DBSCAN algorithm;English mobile teaching;FPGA;GSD;HTML priority system;IP network;IT skill learning for visual impaired;LUV color space;MANET security issues;MBSOM;MFCC;MPLS network;MR images;OdiaBraille;PID controller optimisation;RBSO adder;RGB color space;SBC;SRM drive;TORA security;VANET;WAV audio file;We Chat marketing;Web cache recommender system;Web crawlers;Web indexing;YIQ color models;ZETA converter;adaptive gateway discovery mechanism;agent based semantic ontology matching;agile SCRUM framework;aspect oriented systems;attribute based encryption;carbon dioxide emission mitigation;cellular towers;cloud data access;cluster computing;cochlear implantation;cognitive radio networks;color aerial images;communication understandability enhancement;content based image retrieval;critical health data transmission system;current signature analysis;cyclone separator CFD simulation;data aggregation;data mining;data storage;database security;diesel engines;digital forensics;e-learning;education information system;eigenvector centrality;encrypted cloud data;energy based spectrum sensing;energy smart routing protocol;enzyme classification;expert system;externally powered upper limb prostheses;facial feature extraction;feedforward neural networks;foreign language learning;fractional PID tuning;fuzzy logic based clustering algorithm;fuzzy logic controller;generalized discrete time model;genetic algorithms;green cloud computing;heart disease prediction;heat exchanger temperature process;heterogeneous online social networks;heuristic job scheduling;high speed nonvolatile NEMS memory devices;home appliances;human skin detection;hybrid evolutionary MPLS tunneling algorithm;hybrid watermarking technique;hybrid wavelet transform;image classification;image compression;image data deduplication;image fusion;image segmentation;imperfect debugging;induction motors;input power quality;iris recognition;irreversible regenerative Brayton cycle;knowledge representation;launch vehicle optimal trajectory generation;lossless data compression;low energy adaptive stable energy efficient protocol;machining parameter optimization;mechanical microdrilling;mechanical structure modal analysis;medical image reconstruction;misalignment fault detection;mobile ad hoc networks;modified LEACH protocol;moving object segmentation;multiband microstrip antenna;multikeyword based sorted querying;offline English character recognition;online movie data classification;parsing;phonetic word identification;power amplifier;power generation;privacy preservation;program test data generation;reconfigurable ring resonator;relay node based heur protocol;rule based derivational urdu stemmer usal;rule based inflectional urdu stemmer usal;secret key watermarking;self-organizing feature map;shadow detection;smart home environment;smartphone storage enhancement;software reliability growth modeling;software testing;software up-gradation model;speech recognition system;stochastic differential equation;switched reluctance motor drive;task scheduling;task set based adaptive round robin scheduling;test case selection;text dependent speaker recognition;text transcription;triple band stacked patch antenna;tumor boundary extraction;two-stage series connected thermoelectric generator;user review data analysis;vertical partitioned medical database;vibration signal based monitoring;vibration signature analysis;video authentication;virtual machine introspection;virtualization;vortex induced vibration;vulnerability discovery model;wind power plants;wireless sensor networks},

URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7155050&isnumber=7154914>

"Table of contents," *2014 Global Summit on Computer & Information Technology (GSCIT)*, Sousse, 2014, pp. 1-1.
doi: 10.1109/GSCIT.2014.6970094

Abstract: The following topics are dealt with: cellular automata model; sputum color image segmentation; unsupervised Hopfield neural network classifier; wireless sensor networks; miniaturized tag antenna RFID; WDM all-optical networks; anticultism social education media system; frequency domain periodic noise detection and removal; cache consistency; adaptive page-server database systems; semiautomatic cleaning lexical ontology; video surveillance system; optical flow; stereo vision; software development model selection; medical image crypto-compression; circuit switched networks; DNS-based load balancing; geographically distributed Web server systems; routing protocols; MANETs; split ring resonators; pool based key predistribution scheme; fingerprint recognition; instruction-level parallelism; product feature extraction; electronic implantable devices; radio propagation; WSN; CMT-SCTP; elliptic curve digital signature algorithm; pedestrian detection; medical image watermarking; medical image encryption; mobile device user interface for visually impaired users; hybrid renewable energy; wind systems; pervasive computing; classroom environment; AODV protocol; hash-based message authentication algorithm; smart energy management; fractional integral equation; stereoscopic mobile natural feature tracking; human-machine voice interface based standard Arabic; Landsat images; urban change detection; virtual environment stereo image capture; Web-based decision support system; handwritten object recognition; regularized logistic regression; and feedforward neural networks.

keywords: {Hopfield neural nets;Internet;audio user interfaces;cache storage;cellular automata;data compression;decision support systems;digital signatures;educational computing;energy management systems;feature extraction;feedforward neural nets;file servers;fingerprint identification;handicapped aids;handwritten character recognition;image capture;image classification;image coding;image colour analysis;image segmentation;image sequences;image watermarking;integral equations;medical image processing;mobile ad hoc networks;mobile computing;natural language processing;object detection;object recognition;object tracking;ontologies (artificial intelligence);pedestrians;public key cryptography;radiofrequency identification;regression analysis;resonators;resource allocation;routing protocols;social networking (online);software engineering;stereo image processing;video surveillance;wind power;wireless sensor networks;AODV protocol;CMT-SCTP;DNS-based load balancing;Landsat images;MANETs;WDM all-optical networks;WSN;Web-based decision support system;adaptive page-server database systems;anticultism social education media system;cache consistency;cellular automata model;circuit switched networks;classroom environment;electronic implantable devices;elliptic curve digital signature algorithm;feedforward neural networks;fingerprint

recognition;fractional integral equation;frequency domain periodic noise detection;frequency domain periodic noise removal;geographically distributed Web server systems;handwritten object recognition;hash-based message authentication algorithm;human-machine voice interface based standard Arabic;hybrid renewable energy;instruction-level parallelism;medical image crypto-compression;medical image encryption;medical image watermarking;miniaturized tag antenna RFID;mobile device user interface;optical flow;pedestrian detection;pervasive computing;pool based key predistribution scheme;product feature extraction;radio propagation;regularized logistic regression;routing protocols;semiautomatic cleaning lexical ontology;smart energy management;software development model selection;split ring resonators;sputum color image segmentation;stereo vision;stereoscopic mobile natural feature tracking;unsupervised Hopfield neural network classifier;urban change detection;video surveillance system;virtual environment stereo image capture;visually impaired users;wind systems;wireless sensor networks;Feature extraction;Image segmentation;Integrated circuit modeling;Load modeling;Mobile computing;Predictive models;Wireless sensor networks},
URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6970094&isnumber=6970090>