**Resource and Research List**

Please find the research marterial that you will find useful ove the weekend.

**#hackthefuture**

HackathonResourcesList.pdf

This document shall be read in conjunction with the main Hack the Future Challenges (LIVE) 21 April 2017 document.

The research links below provide background information that will be helpful to you competing effectively in this Hackathon.

**PROOFS:**

Steven G Krantz Zero Knowledge Proofs White Paper <https://en.wikipedia.org/wiki/Zero-knowledge_proof>

Zero Knowledge Proofs “Identifiers & Attributes and Least Disclosure Principles” <https://en.wikipedia.org/wiki/Zero-knowledge_proof>

“3 Pass Protocol” – Key Authentication Definition Wikipedia <https://en.wikipedia.org/wiki/Three-pass_protocol>

Cryptography – StackExchange – Security and Digital Signatures <https://crypto.stackexchange.com/questions/44937/security-services-provided-by-digital-signature>

Dan Fosberg “Implicit Authentication” White Paper – Sender and Receiver Nokia Research <https://crypto.stackexchange.com/questions/44937/security-services-provided-by-digital-signature>

**BIOMETRICS:**

2005 Bernadette Dorizzi BIO Identity “BIOMetric Identity Authentication” <http://eph.telecom-sudparis.eu/files/2010/08/bio-identity-description.pdf>

Biometrics Definition Wikipedia <https://en.wikipedia.org/wiki/Biometrics>

Aware Biometric Company website “Software products (Mobile, Face and Iris Scanning)” <https://www.aware.com/biometrics/?gclid=CjwKEAjwrMzHBRDW3saA88aT80MSJACbvo1Tey-4hjid8EhpOrJg5rJthOYZEmpTo9jTaSFvgcuzqhoCm7Tw_wcB>

BIOmetric Update Smart Phones – “Fingerprint and Facial Recognition” <http://www.biometricupdate.com/tag/smartphones>

The Verge “Faking Fingerprints” Article of Security HacK <http://www.theverge.com/2016/5/2/11540962/iphone-samsung-fingerprint-duplicate-hack-security>

Trent McConargy CTO BigchainBD “Blockchain Unlocking Artificial Intelligence Potential” <https://blog.bigchaindb.com/blockchains-for-artificial-intelligence-ec63b0284984>

Power of Money using “Voice for Security” in Banking <https://wealth.barclays.com/en_gb/home/international-banking/insight-research/manage-your-money/banking-on-the-power-of-speech.html>

BANQU Ashish Gadnis CEO CNBC Interview – Identity for the Unbanked – Creating Economic Identities “Life Records” <http://video.cnbc.com/gallery/?video=3000526753>

Voice BIOMETRIC Identification **Voice Real Time Authentication** “Who you are” <http://www.nice.com/engage/authentication-and-fraud/real-time-authentication/?utm_source=google&utm_medium=cpc&utm_campaign=RTA&utm_term=voice%2Bbiometrics>

**BLOCKCHAIN IDENTITY:**

Blockchain based Digital Identity Daily Fintech Opinion Piece <https://dailyfintech.com/2015/05/22/blockchain-based-digital-identity-will-disrupt-commerce-and-government/>

World Economic Forum - WEF On 2billion Unbanked <https://www.weforum.org/agenda/2016/05/2-billion-people-worldwide-are-unbanked-heres-how-to-change-this>

**DIGITAL OBJECTS:**

Geert Lovink, Yuk Hui “Digital Objects and Metadata Schemes” <http://www.e-flux.com/journal/78/82706/digital-objects-and-metadata-schemes/>

Xiaoming Liu, Lyudmila Balakireva, Herbert Van de Sompel “File Based Storage of Digital Object” <http://www.e-flux.com/journal/78/82706/digital-objects-and-metadata-schemes/>

Smart Objects Definition Wikipedia <https://en.wikipedia.org/wiki/Smart_objects>

Digital Watermarking Definition Wikipedia <https://en.wikipedia.org/wiki/Digital_watermarking>

Digital Watermarking versus Cryptography Slide share <https://www.slideshare.net/ankushkr007/digital-watermarking-15450118>

Van Houwelling “Digital Object Servitudes” – Computer files containing sounds recordings, and other data <http://www.temple.edu/lawschool/dpost/PTW/vanHouweling.pdf>

**CODE LAW:**

Computational Law for Object Oriented Programming (OOP) <https://medium.com/@ConsenSys/what-if-we-developed-legal-contracts-like-we-developed-software-applications-1b5bc8fbb915>

**SENSORY DATA:**

Analysing Sensory Data and Building predictive Algorithms MathWorks <https://uk.mathworks.com/solutions/internet-of-things/analyzing-iot-sensor-data-and-building-predictive-algorithms.html>

Toni Breadon “Public Key Cryptography” “Digital Signatures” <https://nrich.maths.org/2200>

SawtoothLake White Paper IoT and Blockchain <https://intelledger.github.io/introduction.html>

**DAC/DAO:**

Melanie Swan Blockchain Thinking The Brain as a Decentralised Autonomous Corporation <http://inpluslab.sysu.edu.cn/files/Paper/SmartContract/Blockchains_And_Smart_Contracts_For_The_Internet_Of_Things.pdf>

**CAPCHAS – AI, DEEP LEARNING:**

Tharida Akash “Using Deep Learning to Automate Capchas - “Completely Automated Public Turing test to tell Computers and Humans Apart <http://dominikharz.me/ai/2017/01/12/breakingcaptcha.html>

Roger Parloff FORTUNE MAGAZINE – DEEP LEARNING - Neural Networks “Tensor Processing Units” <http://fortune.com/ai-artificial-intelligence-deep-machine-learning/>

DeepMind Lab White Paper - <https://arxiv.org/pdf/1612.03801.pdf>

DeepMind Recurrent Environment Simulators <https://arxiv.org/pdf/1704.02254.pdf>

**Copyright, Digital Rights & Infringement:**

Digital Rights Management Wikipedia <https://en.wikipedia.org/wiki/Digital_rights_management>

Blockchain Operating System for Music (Copyright) <http://www.the-blockchain.com/docs/Blockchain%20Solution%20for%20the%20Music%20Industry.pdf>

Handle System Wikipedia – distributed computing for assigning persistent identifiers and handles. <https://en.wikipedia.org/wiki/Handle_System>

DARPA Defence Advanced Research Projects Agency Wikipedia <https://en.wikipedia.org/wiki/DARPA>

Digital Object Identifiers Wikipedia <https://en.wikipedia.org/wiki/Digital_object_identifier>

World Intellectual Property Organisation WIPO <https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2008121639>

Copyright Infringement Wikipedia <https://en.wikipedia.org/wiki/Copyright_infringement>

WIPO Copyright and Performances Phonograms Treaty Wikipedia <https://en.wikipedia.org/wiki/WIPO_Copyright_and_Performances_and_Phonograms_Treaties_Implementation_Act>

BitTorrent File UP and Downloads Wikipedia Definition <https://en.wikipedia.org/wiki/BitTorrent_(company>)

**MISC:**

A Peer to Peer Electronic Cash System 2008 Satoshi Nakamoto <https://bitcoin.org/bitcoin.pdf>

Github: Ethereum White Paper <https://github.com/ethereum/wiki/wiki/White-Paper>

NXT White Paper Rev 4 2014 Brave NewCoin Release <https://bravenewcoin.com/assets/Whitepapers/NxtWhitepaper-v122-rev4.pdf>

Ethereum Proof of Stake “Casper” Stack Exchange

<https://ethereum.stackexchange.com/questions/102/how-does-the-casper-proof-of-stake-algorithm-work>

Bitfury Proof of Stake versus Proof of Work <http://bitfury.com/content/5-white-papers-research/pos-vs-pow-1.0.2.pdf>

Elliptic Curve Cryptography Wikipedia Definition <https://en.wikipedia.org/wiki/Elliptic_curve_cryptography>

Users are recommended to read the [**README.MD**](http://readme.md/) file and then the

[**HACKATHON\_README.MD**](http://hackathon_readme.md/) file to get started