Category	Research URL	Citation	Research Title	Points	Problem with research
IoT			The IoT security gap: a look down into the valley between threat models and their implementation	We claim to have identified gaps between threat modeling frameworks, threat model use in IoT security research and attacks that may be missed by current research. The gap between security research and IoT The gap between threat modeling frameworks and security research The gap between threat modeling frameworks and IoT	
NLP				Extensive review or up-to-date Body of Knowledge on text generation in Deep Learning Networks	
Education				AI and Machine Learning implementation in Higher Education Institutions especially for low-to-middle income students	
IoT			Machine learning approaches to IoT security: A systematic literature review	DL and IDS needs excessive training resources. Some models take weeks and months to train; this makes the model building and training burdensome and expensive Some of the network [IoT] devices don't have enough resources like computational power and memory to run sophisticated attack detection models Current DL models are mostly supervised and are dependent on a human to label the traffic properly. Deliver a Scalable IDS solutions for IoT Selecting the proper dataset	
Machine Learning; Sentiment analysis	https://www.researchgate.net/profile/Kamalakkannan-Somasundaram/publication/341913399_Literature_Review_on_Sentiment_Analysis_in_Social_Media_Open_Challenges_toward_Applications/links/5ed929c14585152945319665/Literature-Review-on-Sentiment-Analysis-in-Social-Media-Open-Challenges-toward-Applications.pdf		Literature Review on Sentiment Analysis in Social Media: Open Challenges toward Applications	Now-a-days, the conventional research models are experimented using the public review datasets. However, this kind of review has not been evaluated keenly by concerning the sentiment. By categorizing the sentiments as positive or negative, it will not provide the original and the concealed information beyond the actual concepts of sentiments. In addition, there are some specific sentences that are quite complicating and accurate classification cannot be performed It is observed that there are few research methodologies, which have been recognized as standard models It is unfortunate that in the conventional researches, the authors didn't found several confirmations related to the computational expenses of efficient techniques for performing huge data sentiment analysis Most of the researches describe IoT cloud-based platform that consists of four tiers: devices tier, gateway tier, the cloud tier which includes services manager as well as message broker, and the application tier Scalability is among the most important challenges that face IoT development Interoperability, standards, and generic APIs are required features of proposed solutions to handle the heterogeneity challenge Architectures design should be built on dynamic topologies not static ones Naming and identification schemes should be studied and enhanced to handle scalability in devices and services numbers Enhancing Objects and services discovery is important for the	

Category	Research URL	Citation	Research Title	Points	Problem with research
	https://www.researchgate.net/profile/Kamalakkannan-Somasundaram/publication/341913399_Literature_Review_on_Sentiment_Analysis_in_Social_Media_Open_Challenges_toward_Applications/links/5ed929c14585152945319665/Literature-Review-on-Sentiment-Analysis-in-Social-Media-Open-Challenges-toward-Applications.pdf			One of these p**romising paradigms is ICN, where information retrieval by near caches, using contents topics rather than IP addresses**, might decrease network delays, overall traffics and supports scalability	
IoT	https://dl.acm.org/doi/pdf/10.1145/3297280.3297617		The preliminary results of a mapping study of deployment and orchestration for IoT	owever, there are still different gaps that the current approaches seem to be immature to address such as the real, low-level technical details of deployment and/or orchestration at IoT devices level We suggest that future IoT research should dig deep into technical details at IoT devices level to really control the whole chain of IoT software deployed from cloud until IoT devices. In this way, IoT deployment will enable monitoring, adaptation, and actuation conflict management for ensuring the trustworthiness of IoT systems	
AI	https://www.sciencedirect.com/science/article/pii/S014829632030583X#b0170		Artificial intelligence in supply chain management: A systematic literature review	less attention given to promotion, product and place Overall, sales promotion, advertising, inventory, sales force, public relations and direct marketing are the subfields that can be improved dramatically through the use of AI Techniques such as GA, CBR, swarm intelligence, SVM, simulated annealing, automated planning, association rules, tree-based models, hill-climbing, k-means clustering, expert systems, heuristics, robot programming, stochastic simulation, Bayesian netowrks, Physarum model, RBR, decision trees and Gaussian models. There are not studied as much as ANN, FL, ABSs, GA, data mining, CBR, swarm intelligence or SVM which makes for an interesting gap that should be addressed in future research a number of AI techniques in need of further research and industrial adoption, such as NLP (machine–human interactions), TS (optimisation, robot dynamics, and programming that focuses on creating intelligent robots) and MDP (a framework for modelling the decision-making process). research on interactive decision-making systems promotes a deeper understanding of AI solutions and accordingly improves the capabilities of such solutions. Using such systems allows AI to help this industry redefine today's practices by transitioning operations from reactive to proactive, processes from manual to autonomous, services from standardised to personalised and production planning from forecasting to prediction	
Software Architecture	https://www.sciencedirect.com/science/article/pii/S016412121830267X		Empirical research for software architecture decision making: An analysis	Human DM in software architecture is a subject that is rarely studied in software engineering	
IoT	https://dl.acm.org/doi/pdf/10.1145/3544836		Scheduling IoT Applications in Edge and Fog Computing Environments: A Taxonomy and Future Directions	the majority of proposals still consider analytical and simulation as their only approach for performance evaluation	
Algorithms	https://www.sciencedirect.com/science/article/pii/S0164121218302139		The pains and gains of microservices: A Systematic grey literature review	There is a gap between industry and academia concerning microservice architecture	

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IoT	https://www.mdpi.com/1424-8220/20/3/828		5G support for Industrial IoT Applications— Challenges, Solutions, and Research gaps	It would be great to see more use case realizations showing industrial users that 5G can fulfill its promises for Industry 4.0 The realization and standardization of an edge cloud or 5G hierarchy will be beneficial for the research efforts he combination of different virtualization technologies has not been standardized yet. The mitigation of security issues related to container based virtualization technologies is also a hot topic, however we still ensure the security of the container based architecture by running them on top of VMs Security has always provided infinite research material in a wide variety of topics. Nowadays, cloud security is already one of the hottest research fields, partly because of 5G and IoT and partly on its own. In 5G, it has an important role on application side as well as on control plane of which defense is critical task	
Cloud Computing	Sheikh et al., 2019			This study focused on reviewing studies related with cloud computing security and resource scheduling and identifying the research gap. Using multiple cloud service providers in organizations and managing the situation safely and effectively are one of the most important issues. The vast majorities of companies are concerned about cloud security and cloud data loss	
Cloud Computing	https://www.igi-global.com/viewtitle.aspx?TitleId=277852&isxn=9781799872627		Cloud Computing: A Systematic Literature Review and Future Agenda	. In addition, investigating the relationships among service quality, trust, loyalty, and respect for customer privacy for success in CRM systems can be considered in the future	
Society 5.0 Industry 4.0	https://www.emerald.com/insight/content/doi/10.1108/IJPPM-03-2020-0137/full/html		Applying Industry 4.0 technologies in the COVID–19 sustainable chains	Therefore, the man-machine relationship in the Industry 4.0 era is analyzed as a gap in the literature. Therefore, as a way to fill this gap, the authors of this article suggest the exploration of the research focused on the Society 5.0. Also known as “super-smart society,	
AI	https://www.sciencedirect.com/science/article/pii/S2666188819300048		Artificial intelligence and effective governance: A review, critique and research agenda	Conversely, there is still an emerging need for understanding the range and effect of AI-based applications and associated challenges in a holistic manner. he future researchers must focus more on the challenges of AI adoption and the risks associated within each sector.	

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AI	https://www.sciencedirect.com/science/article/pii/S0740624X17304781		Mapping the challenges of Artificial Intelligence in the public sector: Evidence from public healthcare	However, empirical research on AI in the public sector is still scarce. Strong AI is not trusted. Only weak AI is used for simple tasks IBM Watson that understanda questions and forms hypotheses. Patients were not included in the research . Ethical challenges brouhgt by AI - Large sets of data required - Dat aintegration - AI algorithm transparency Recommendations: -- investigate the factors that can explain why the various stakeholder groups perceive the challenges differently - no studies showing the adoption of AI technologies.	Findings based on medical institues in China
	https://www.sciencedirect.com/science/article/pii/S0040162515004187		Applied artificial intelligence and trust—The case of autonomous vehicles and medical assistance devices		
AI	https://www.sciencedirect.com/science/article/pii/S0740624X22000788		Artificial Intelligence for data-driven decision-making and governance in public affairs	Gaps in our unerstanding of AI risks, their implications for governance and adequate countermeasures.	No research question
AI	https://www.sciencedirect.com/science/article/pii/S0740624X22000120		Assessing behavioral data science privacy issues in government artificial intelligence deployment	Risks to citizens' privacy according to the types of AI strategies used by governments that may affect collective behavior and cause massive behavior modification. Surveillance capitalism. Citizen behaviour and AI	Behavioural Data Science is not defined in literature and is a new field of study
AI	https://www.sciencedirect.com/science/article/pii/S0740624X2100054X#bb0430		Artificial intelligence-based public healthcare systems: G2G knowledge-based exchange to enhance the decision-making process		
Iot	https://www.tandfonline.com/doi/full/10.1080/10580530.2020.1746982?needAccess=true		Exploratory Analysis of Internet of Things (IoT) in Healthcare: A Topic Modelling & Co-citation Approaches		Bbased on academic reseach highly likely does not match with what's in industry
Big Data	https://www.tandfonline.com/doi/full/10.1080/08874417.2020.1858727		Big Data in Healthcare Research: A survey study		
IoT	https://www.sciencedirect.com/science/article/pii/S0140366420300086		Sensors for internet of medical things: State-of-the-art, security and privacy issues, challenges and future directions		
	https://ieeexplore.ieee.org/abstract/document/7113786		The Internet of Things for Health Care: A Comprehensive Survey	Previous studies have highlighted the need for AAL and corresponding technological support and presented a tentative road map for state-of-the-art AAL technologies	
m-Health; Smartphone	https://www.sciencedirect.com/science/article/pii/S1046202318300860		m-Health 2.0: New perspectives on mobile health, machine learning and big data analytics	they present the smartphone as central to the m-health model	
m-Health	https://www.tandfonline.com/doi/pdf/10.1080/09720510.2017.1395186?needAccess=true		A study on m-health inline with the sensors applying for a real time environment	One such area is Opportunistic Network	
Healthcare 4.0	https://www.tandfonline.com/doi/full/10.1080/09537287.2019.1702226?src=recsys		Healthcare 4.0: trends, challenges and research directions	Table 4 contains the scored importance of IoT in the H4.0 framework	

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mIoT	https://www.researchgate.net/profile/Abdulaziz-Albesher/publication/331642487_IoT_in_Health-care_Recent_Advances_in_the_Development_of_Smart_Cyber-Physical_Ubiquitous_Environments/links/5c8575aa299bf1268d4f8a5c/IoT-in-Health-care-Recent-Advances-in-the-Development-of-Smart-Cyber-Physical-Ubiquitous-Environments.pdf		IoT in Health-care: Recent Advances in the Development of Smart Cyber-Physical Ubiquitous Environments	Address security requirements and challenges Lists several applications using IoT	
m-Health	https://expert.taylors.edu.my/file/rems/publication/109566_5572_1.pdf		A lightweight and secure authentication scheme for IoT based e-health applications	Lightweight secure authentication for IoT Considers the power consumption for such a scheme	Presents solution that mitigates Elliptic curve cryptography
m-Health	https://sciresol.s3.us-east-2.amazonaws.com/IJST/Articles/2016/Issue-37/Article104.pdf		A design characteristics of smart healthcare system as the IoT application	Lists IoT devices and what they do References use of RFID	
IoT Networks	https://www.sciencedirect.com/science/article/pii/S0140366421003327		Edge and fog computing for IoT: A survey on current research activities & future directions		
IoT Security	https://ieeexplore.ieee.org/abstract/document/8052485		A Security Model for Preserving the Privacy of Medical Big Data in a Healthcare Cloud Using a Fog Computing Facility With Pairing-Based Cryptography		
IoT Energy Consumption	https://www.sciencedirect.com/science/article/pii/S0045790618300399		Towards energy-aware fog-enabled cloud of things for healthcare	Presents a strategy to reduce energy consumption in fog devices	
IoT Data Security	https://dl.acm.org/doi/pdf/10.1145/3290688.3290731		“Can I Trust the Data I See?”		
AI	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8285156/		Artificial intelligence in healthcare: transforming the practice of medicine	IoT in the short-term 0-5 years Ambient and Intelligent Care using Chatbots. They list emeraldino, Google Nest, wireless detection of heartbeats	
AI	https://www.sciencedirect.com/science/article/pii/S2405844021010963		AI in patient flow: applications of artificial intelligence to improve patient flow in NHS acute mental health inpatient units	They consider that NHS is using AI in patient flow processes	
IoT; Latency reduction	https://link.springer.com/article/10.1007/s10586-021-03279-3#Sec10		Improving latency in Internet-of-Things and cloud computing for real-time data transmission: a systematic literature review (SLR)	Services requiring realtime access via cloud are impossible due to latency issues	
PHMS	https://ieeexplore.ieee.org/abstract/document/9589019		Review of an IoT-based Remote Patient Health Monitoring System		
IoT	https://ieeexplore.ieee.org/document/6969965		Adopting the Internet of Things technologies in health care systems	Monitor patients in ICU using Microsoft Kinect and other devices	
IoT; Trust	https://ieeexplore.ieee.org/abstract/document/8352081		End-to-End Trust and Security for Internet of Things Applications	Reference to IAB RFC 7452 that details modes of communication	
IoT; Authentication;	https://www.sciencedirect.com/science/article/pii/S2214785320384960#b0030		A review for IOT authentication – Current research trends and open challenges		
IoT	https://www.sciencedirect.com/science/article/pii/S1389128618307035		Current research on Internet of Things (IoT) security: A survey		

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	https://www.sciencedirect.com/science/article/pii/S0169260721003059#bib0006	Calvillo-Arbizu, J., Román-Martínez, I. and Reina-Tosina, J., 2021. Internet of things in health: Requirements, issues, and gaps. Computer Methods and Programs in Biomedicine, 208, p.106231.	Internet of things in health: Requirements, issues, and gaps		
	https://ietresearch.onlinelibrary.wiley.com/doi/full/10.1049/iet-com.2019.0537		Integration of Internet of Things and cloud computing: a systematic survey		
	https://ieeexplore.ieee.org/abstract/document/8276823		Integration of Cloud Computing with Internet of Things: Challenges and Open Issues	Present several challenges for IoT and Cloud integration	
	https://www.sciencedirect.com/science/article/pii/S0140366416300706		On the interplay of Internet of Things and Cloud Computing: A systematic mapping study		
	https://ieeexplore.ieee.org/document/9365708	Bhuiyan, M.N., Rahman, M.M., Billah, M.M. & Saha, D. (2021). Internet of things (IoT): a review of its enabling technologies in healthcare applications, standards protocols, security, and market opportunities. IEEE Internet of Things Journal, 8(13):10474-10498	Internet of Things (IoT): A Review of Its Enabling Technologies in Healthcare Applications, Standards Protocols, Security, and Market Opportunities	identifies market opportunities	
IoT	https://link.springer.com/article/10.1007/s11277-020-07474-0#Sec33		An Overview of Patient's Health Status Monitoring System Based on Internet of Things (IoT)	Highlight several challenges of IoT integration to cloud	
mIoT	https://ieeexplore.ieee.org/document/9650515	Hayyolalam, V., Aloqaily, M., Özkasap, Ö. and Guizani, M., 2021. Edge-assisted solutions for IoT-based connected healthcare systems: a literature review. IEEE Internet of Things Journal.	Edge-Assisted Solutions for IoT-Based Connected Healthcare Systems: A Literature Review		
mIoT	https://ieeexplore.ieee.org/abstract/document/8124196	Baker, S.B., Xiang, W. and Atkinson, I., 2017. Internet of things for smart healthcare: Technologies, challenges, and opportunities. Ieee Access, 5, pp.26521-26544.	Internet of Things for Smart Healthcare: Technologies, Challenges, and Opportunities	- they worked with Pulse meters, blood pressure, body temperature, respiratory rate, pulse oximeter - they consider ECGs, EEG, fall detection, accelerometer, gait detection,	

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mIoT	https://www-sciencedirect-com.uniessexlib.idm.oclc.org/science/article/pii/S1389128619302695	Dhanvijay, M.M. and Patil, S.C., 2019. Internet of Things: A survey of enabling technologies in healthcare and its applications. Computer Networks, 153, pp.113-131.	Internet of Things: A survey of enabling technologies in healthcare and its applications		
IoT; Protocols;	https://www.sciencedirect.com/science/article/pii/S0140366416300731#tbl0001	Mineraud, J., Mazhelis, O., Su, X. and Tarkoma, S., 2016. A gap analysis of Internet-of-Things platforms. Computer Communications, 89, pp.5-16.	A gap analysis of Internet-of-Things platforms	This paper has a nice discussion on the integration protocols expected of an IoT platform. They then list all the products and what each one expects, highlighting the variety of and pain of connecting different IoT devices without IETF intervention.	
Wearables	https://www.sciencedirect.com/science/article/pii/S1574119217303279	Lomotey, R.K., Pry, J. and Sriramoju, S., 2017. Wearable IoT data stream traceability in a distributed health information system. Pervasive and Mobile Computing, 40, pp.692-707.	Wearable IoT data stream traceability in a distributed health information system	they deal with identifying WHO the data is coming from by proposing a new IoT model. They used Petri Net	
IoT Standards	https://dl.acm.org/doi/pdf/10.1145/3231053.3231103	Saleem, J., Hammoudeh, M., Raza, U., Adebisi, B. and Ande, R., 2018, June. IoT standardisation: Challenges, perspectives and solution. In Proceedings of the 2nd international conference on future networks and distributed systems (pp. 1-9).	IoT standardisation: challenges, perspectives and solution		
IoT Standards	https://link.springer.com/article/10.1007/s11036-018-1089-9	Noura, M., Atiquzzaman, M. and Gaedke, M., 2019. Interoperability in internet of things: Taxonomies and open challenges. Mobile networks and applications, 24(3), pp.796-809.	Interoperability in Internet of Things: Taxonomies and Open Challenges	Provides a framework dealing with IoT device interoperability	
IoT Standards	https://ieeexplore.ieee.org/abstract/document/8358536		IoT standardization efforts — An analysis	Defines many standards and bodies that are dealing with the standardisation process for IoT devices	
IoT Networks	https://ieeexplore.ieee.org/abstract/document/7414020		IoT for AAL: An Architecture via Information-Centric Networking	Uses the Information Centric Network approach to route messages on an IoT Network	
IoT Architecture	https://www.sciencedirect.com/science/article/pii/S1319157816300799#f0015		A survey on Internet of Things architectures	Different types of IoT Architectures	
IoT Architecture	https://www.sciencedirect.com/science/article/pii/S1084804520301375		A–Z survey of Internet of Things: Architectures, protocols, applications, recent advances, future directions and recommendations		
IoT	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6540187/		A Novel Internet of Things-Enabled Accident Detection and Reporting System for Smart City Environments	Present a novel approach to using IoT for accident prediction within smart cities and Intelligent Traffic Systems	
IoT	https://link.springer.com/content/pdf/10.1007/s11277-011-0288-5.pdf		Internet of Things: Applications and Challenges in Technology and Standardization		
Fog Computing	https://www.sciencedirect.com/science/article/pii/S0306437921000776#b34		The convergence and interplay of edge, fog, and cloud in the AI-driven Internet of Things (IoT)	OpenFog consortium, 1934-2018 IEEE standard. Use of 5G Interactrion and cooperation between devices is still to be defined	
Machine Learning	https://www.mdpi.com/1424-8220/22/10/3634/htm		A Machine Learning Framework for Automated Accident Detection Based on Multimodal Sensors in Cars	- They found out SVM wroked very well (matching my LR) Feature detection - Strategic Highway Research Program (SHRP2) Naturalistic Driving Study - Providing a comprehensive study on applying feature engineering and feature learning approaches and analyzing the optimal feature extraction approaches in spite of their respective drawbacks is of tremendous importance	

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IoT	https://ieeexplore.ieee.org/abstract/document/9133106		A Comprehensive Study on IoT Based Accident Detection Systems for Smart Vehicles	Current approaches do not cover all these interoperability issues: - device - syntactic - networking - semantic - platform Accident Messaging and detection systems: (1) Detection , (2) prevention, (3) Hybrid, (4) ML/AI	
IoT	https://dl.acm.org/doi/abs/10.1145/3487664.3487785?casa_token=5FGKutvBqb8AAAAA:yEgxu1pKFfEt-jfhZVzdFxi66fgpiMsLuEF72cZw1fYsWTrjXkETJq9XvFB7lYESf77rcW5j4mUz		Survey on IoT Data Analytics with Semantic Approaches	- the possibility of describing and deduce knowledge of time-series data is still an open challenge for IoT applications. - Semantic Web is not a magic tool that solves interoperability in the IoT. Semantic Web is good in a specific domain and must be combined with other technologies to solve interoperability - The requirement of a flexible way of interoperability is the key challenge of defining an IoT system's ability to exchange information and knowledge	
IoT	https://www.hindawi.com/journals/wcmc/2017/9731806/		Semantic Interoperability in Heterogeneous IoT Infrastructure for Healthcare	- If we can integrate IoT with existing IT infrastructure then it will solve many problems like protocol, packet size, encryption/decryption algorithms, and so forth	
IoT	https://ieeexplore.ieee.org/document/9431087		Towards a Staging Environment for the Internet of Things	Open source prototype of a staging environment for IoT devices	
Traffic Accident Prediction	https://prism.ucalgary.ca/bitstream/handle/1880/114569/ucalgary_2022_owjimehr_omid.pdf?sequence=2&isAllowed=y		Road Collision Analysis and Prediction Using Machine Learning Approaches	Looks at ALL weather types and which ML model is best for predicting traffic accidents	
Software Architecture	https://www.mdpi.com/1424-8220/19/20/4354/htm		An Interoperable Component-Based Architecture for Data-Driven IoT System	They could integrate many different IoT devices with little need for standardisation Require the need for ML or AI methods to "resolve data string of diverse communication protocols and a smart data decoding and identiication system for non-standardised data formats"	
Topic Modelling	https://journalofbigdata.springeropen.com/articles/10.1186/s40537-019-0255-7		Smart literature review: a practical topic modelling approach to exploratory literature review	Topic modelling assists with performin smart literature reviews	
Topic Modelling	https://ieeexplore.ieee.org/abstract/document/9170324		Research Topic Recommendation Based on Latent Dirichlet Allocation	they link authors and topics	
IoT	https://onlinelibrary.wiley.com/doi/full/10.1002/cpe.4946?saml_referrer		An overview of Internet of Things (IoT): Architectural aspects, challenges, and protocols	-list protocols, opensource tools and other usefule information related to IoT	
Programming Languages	https://dl.acm.org/doi/pdf/10.1145/3229094		Djnn/Smala: A Conceptual Framework and a Language for Interaction-Oriented Programming		
Programming Languages	https://dl.acm.org/doi/pdf/10.1145/2661136.2661156		The Programming Language Wars	- Identify the impact of programming languages on people 1) language divergence, 2) language impact, and 3) language communities - Resp: do features benefit developers? computer scientists do not investigate one of the most impactful problems in all of computer science. - Lots of research questions and responsibilities. Quite up to date - Language design impact human society and is a fundamental principle of design - Resp: Carefully map out language usage in academia	
Programming Languages	https://ieeexplore.ieee.org/abstract/document/5390586		History of IBM's Technical Contributions to High Level Programming Languages		
Programming Languages	https://ieeexplore.ieee.org/abstract/document/8658592		What Language? - The Choice of an Introductory Programming Language	American universities choose languages but not based on what's important.	
Programming Languages	https://files.eric.ed.gov/fulltext/EJ1079004.pdf		Programming Language Use in US Academia and Industry	They reference Udemy, Cousera, etc.	
Programming Languages	https://www.sciencedirect.com/science/article/pii/S0950584921000811		How do developers discuss and support new programming languages in technical Q&A site? An empirical study of Go, Swift, and Rust in Stack Overflow	- They considered, Rust, Go and Swift. - Found a correlation between developer activity and influence on language - obtained data from SO For each RQ, they list motivation, approach and results	

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Programming Languages	https://repositorium.sdum.uminho.pt/bitstream/1822/79067/1/OASIcs-ICPEC-2021-3.pdf		Programmers' Affinity to Languages	- Personal affinity developers have toward a particular language	
Programming Languages	https://link.springer.com/chapter/10.1007/978-3-319-91908-9_15		The Next 7000 Programming Languages	- talks about the volution of programming languages. Talk about it like Darwinian evolution - 12000 words - Factors that keep programming languages alive	
Sentiment analysis	https://www.sciencedirect.com/science/article/pii/S0950584921001051#b13		A decision model for programming language ecosystem selection: Seven industry case studies	- a decision support system to select the right language based on several attributes	
Sentiment analysis	https://dl.acm.org/doi/pdf/10.1145/3463274.3463328		Development and Application of Sentiment Analysis Tools in Software Engineering: A Systematic Literature Review		
Programming Languages	https://ieeexplore.ieee.org/abstract/document/7476675		A Large Scale Study of Multiple Programming Languages and Code Qualit		
Programming Languages	https://dl.acm.org/doi/pdf/10.1145/3340571		On the Impact of Programming Languages on Code Quality: A Reproduction Study	A review of the 2014 paper by Rey et al.	
Programming Languages	https://ieeexplore.ieee.org/abstract/document/1438333		An empirical study of programming language trends	-empirical study of data across univesities across the globe. Reliability, and other "-ilities" were examined. Intrinsic and extrinsic factors	
Programming Languages	https://d1wqtxts1xzle7.cloudfront.net/79974962/download-with-cover-page-v2.pdf?Expires=1661015681&Signature=Pxhpv99b2wQ8sCOhzkBuPd9aKPlUWNdBUMn663c4y4zITuh4UeOMeEdzCYH13kmLTbkfUEYE2IwA3BPYxsjhEdAYiMb6FUJk93uQKfduE~iGQ6tf4VWczkRxPRKNx0fq8E4tXN-9YRNS51Tcr7AMbqBfr5n5UZ4fH2YIEq51Bib1oJYLaGcSI-XdQ1OxNEwp2r3A9xVrvsiDgYnPqFpTPcG-LgyQC9whBrazEzkU0pLlKh3mpyuGK~45YcpkKDpBzX8D7TEo13eJDT8-eF40dpY1Ogq8h53053cUq-kCKSFPI5d57iaAhBt7ptMb~0upLNWCUhclkGEm2d6wpchwhg__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA	Goosen, L., Mentz, E. and Nieuwoudt, H., 2007, November. Choosing the "best" programming language. In Proceedings of the computer science and IT education conference (pp. 269-282).	Choosing the "Best" Programming Language?!	Focused on selection of programming language in high schools	
Programming Languages	https://dl.acm.org/doi/abs/10.1145/2509136.2509515?casa_token=N88-4olaJ1IAAAAA:uL5qlcHSRn9g6WUY1_erx-reNN-JmRFXXDO5MmyJhRULap_Fr9yuEow0UJVDhbgMZoV2JbQvm0Vg8Lo	Meyerovich, L.A. and Rabkin, A.S., 2013, October. Empirical analysis of programming language adoption. In Proceedings of the 2013 ACM SIGPLAN international conference on Object oriented programming systems languages & applications (pp. 1-18).	Empirical Analysis of Programming Language Adoption	Looked at SourceForge projects - used a survey approach - considered Q: how do developers acquire languages? Which factors most influence developer decisions for language selection? What properties describe language popularity?	
Programming Languages	https://dl.acm.org/doi/pdf/10.1145/3001878.3001880		What Is a Programming Language, Really?	Brief overview and set the agenda for additional research. For example the societal, and ethical impacts of a programming language. They ask several good and pertinent questions.	

Category	Research URL	Citation	Research Title	Points	Problem with research
Programming Languages	https://d1wqtxts1xzle7.cloudfront.net/56893222/A_CORRELATION_BETWEEN_STUDENTS_ENGLISH_20180629-15047-11ggc35-with-cover-page-v2.pdf?Expires=1661069493&Signature=HGkJjys1odB-HV4Cw~pHlrdoiCpMecW1zYoNRe8KLiuV2fz4W37Ge-7AK5Onp7DpJGd-GF9cfmNF9uAcwvdweihiu2QQtvZ~UNbpjYbz72At--8v4KXRzogHqjhSveXkNgwDa~0g6-ZHD88f9G~ckNG~ljq0IfkQO~ON8BI7UUoUH-fNe0fo3CQkztFEkd72Izn2cMdKfi46-5PCQiB-oZ8WqtKzIbABTyVx5Qk3dh3-JxSbp2XXcRqatSf0rXn5rxpBe~bBSJvzoNAJUD9ac5B7iDSYPJWbKLqv5~du9ALTz~9FUdYKZF7AdoIutmKGojM0qbjMW0RDZlE9XME1Aw__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA		A Correlation Between Students' English Proficiency and Their Computer Programming Mastery	English is indeed needed to learn programming	
Image Recognition	https://peerj.com/articles/cs-631/#supp-1		Image-based many-language programming language identification	- Used neural nets to identify programming languages from images	
	https://www.scirp.org/journal/paperinformation.aspx?paperid=106447		Linguistic Economy Applied to Programming Language Identifiers		
Topic Modelling	https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0253010			first large-scale analysis of community structure within Stack Overflow platform	
Topic Modelling	https://ieeexplore.ieee.org/abstract/document/5635130		Security Trend Analysis with CVE Topic Models	-Provide step by step guide how to apply LDA topic modelling to CVE database - They analysed the CVE DB and not Stack Overflow data	
Topic Modelling	https://link.springer.com/article/10.1007/s10664-012-9231-y		What are developers talking about? An analysis of topics and trends in Stack Overflow	;- used LDA on Stack Overflow data - Future: plan to perform topic analysis of the questions and answers separately, so that we might find different topics from the overall analysis. - Future: plan to apply LDA to a smaller time interval (e.g., 1–3 months), - Future: experiment with other values of K, in an effort to find finer-grained topics - Future: Our technique can be augmented with statistical models proposed by other researchers (Shah and Pomerantz 2010) to determine the quality of an answer.	