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**Title word cross-reference**

1 [LRS21, Zin15].  
12 [BBSPK22, GES14, GYSH19, HAGM14, HAG15b, JK20, OWK21, TM14].

2 [RSL22].

6 [IKWR22].

7th [SA20].

**ABET** [Blu22]. **Abilities** [AJNN20, JNA18]. **Abstraction** [DSU20, KDV22, SSD09, SA20]. **Academia** [NJK19]. **Academic** [KPM18]. **Academics** [SDBJ19], **Academies** [DLM11].

**Accessibility** [CGZ20, PLB+12, WCPF21]. **Accomplishment** [ZD15]. **according** [MM12]. **Accreditation** [Blu22]. **Achievement** [AANK14, BJCS21, CHA17, Zin15]. **ACM** [Ko22a, TM09, CB19]. **Across** [AM21]. **Action** [IT17, LMGVS+16]. **Active** [VI13, IT13]. **Activities** [MDS16, RKM20]. **Activity** [LC21]. **Adaptive** [VMAG22]. **Adding** [BLNC09, DJHGI19]. **Address** [RvJP20]. **Affect** [TAL17]. **affordable** [AGEL13]. **African** [EKSW11]. **After** [PHRC21]. **After-Hours** [PHRC21]. **Agenda** [HOC17, SF19, TS20]. **Agile** [FEC17, MSH10]. **AI** [TMSA22].

**Algorithm** [Kar09, RV09, SCA+10, UFVI09].
Algorithmic [Kie09]. Algorithms [EK17, VI13]. Alice [Coo10, UCK+10].
Analytics [GBB+17, GK17, HOC17, KG18, TWH18]. Analyze [VFFT16]. Analyzing [AHL17].
Application [CG19, Mod21, RMNC10]. Application-Oriented [RMNC10]. Applications [TWH18]. Applying [ETN+21]. Approach [AANK14, BHMG21, BC12, CMSP20, ETN+21, Joh19, KLS+14, MFM+16, Mod21, PGJS17, TAL17, VS22, CHM13].
Architecture-Based [Shi16]. architectures [ZPB13]. Areas [KS14]. Arising [LC21]. Art [Ip12, PLF22].
Assessment [DJGIO20, DHH+15, Lai22, LIG22, PLF22, Ric09, SDBJ19, VMAG22].
Associations [PCH09]. Athletic [Joh19]. Attitudes [BBF+21, PLB+12, TABA12].
AuDeNTES [MM12]. Audience [AMD22]. Autograding [HBVTN21]. Automata [IRY17]. Automated [KJH19, PLF22].
Automatic [MM12]. Average [TWH18]. Aware [VGRM19].
Back [RS14]. Backward [TM15]. Bare [LMGV+16]. Barriers [GYSH19, PGJS17]. Based [AAGH14, BL14, DTT16, GGT20, GBB+17, HHM19, HOC17, Lai22, LMGVS+16, MFR13, MFM+16, O’G12, RT15, Ric09, RV09, RMNC10, SSSC18, Shi16, TAL17, WW17, HM22, Mod21, VS22].
Being [RHSS20]. Beliefs [BA17, FPSS22]. Benchmarks [HB15]. Benefit [DCW19].
Blending [CHA17, IT17]. Block [GBB+17, WW17]. Block-Based [GBB+17, WW17]. Blocks [CG19]. Bloom [DTT16].
BlueJ [BS10]. Body [DTT16].
Bring [RWK+15]. Bringing [HB15].
Broadening [CHH+11, DBBR11, LV11a, LV11b].
Bugged [ABCD20]. Building [SGHZS19].

[TBP21]. Considered [DJGIO20].
Considering [CGZ+20]. Consortium [BCD10]. construction [NCLN13].
Constructionist [MSH10]. Content [BSS20, VMAG22, WCPF20, YB19].
Context [GEME14, LZRO21, ORS16].
Contingency [AHL17]. Continues [Hun17]. Continuum [CB19]. Controlled
[Bol22, DSUP20, DSU20, MC19, WX18].
Conversion [HM21]. Cooperative [BC13].
Copying [DJHGI19]. Core [JNA18, ZPB13].
Correctness [DHH+15]. Counter [EBC+21]. Counter-hegemonic
[EBC+21]. Countries [GES14]. Course
[AHL17, BHHMG21, BTF+19, BCZ19, CKSS21, CDCLK17, EK17, IT17, KKL16,
LLKH18, MTGM21, NGK11, PDF15, Rit09, She13, SH10, WX18, Wan11, d’A10].
Courses [ASC19, CHA17, CDK+14, Ip12, MFCLG19, Mit14, OHR22, Rit09, SSF+19,
SN+22, SdB+18, TPB21, TK16, UR17, VMAG22, HAA13, LGP13]. Coverage
[ECF18]. Crafts [KLS+14]. Crafts-Oriented [KLS+14]. Creating
[Rit09]. Creation [RWK+15]. Creative [Fie19]. Creativity [ALP12, Sha22].
Creativity-Supporting [ALP12]. Critical
[GHT+11, HOC17]. Cross [TM14].
Cross-National [TM14]. Crossing [HM21].
CS [RVAN15, Blu22, FPSS22, HM21, KV15, LBT20, MSP21, PLB+12, RTE21, SWL+22,
TABA12, TWH18, VTB+20, VS22]. CS1 [BC13, ORS16, Sha22]. CS2 [TPQE18].
CS4HS [RSPB17]. CSF [HBVTN21].
CSLE [ALP12]. CSS [PDF15]. CSTutor
[BL14]. CUDA [DSU20]. Current
[ALHR17, CAL15, RB21]. Curricula
[AJNN20, BCD10, WCPF20]. Curriculum
[Blu22, BMB+18, DTT16, McG12a, WHS+17, AGEL13]. Cyber
[AJNN20, JNA18]. Cyber-Defense
[JNA18]. Cybersecurity
[JNA18, LRVW14, PHP+22]. Cyprus
[CJS+17].
Darmstadt [RVAN15]. Data
[AHL17, BA17, BL14, CHU+09, GBB+17, WZL+22, YR15]. Data-Driven
[GBB+17, YR15]. Database [MTGM21].
Debieron [Vog21]. Debugger [BS10].
Debugging [ABCD21]. Decade
[CHH+11, JK20]. Decisions [HM22].
Defense [AJNN20, JNA18]. Degree
[AANK14, McG12a]. Demo [KDXB18].
Demo-Oriented [KDXB18]. Demographics [LZRO21]. Derived
[AHL17]. Describing [HLKZ12].
Descriptive [Blu22]. Design
[BC13, BC12, Bur11, CMSP+19, Coo10, DCW19, EKSW11, Ip12, Joh19, LSSM19, OWK21, PCH09, RWK+15, RG19, RLN+22, Shi16, TSK12, Xin15]. Designing
[BBSPK22, NCLN13, OHR22, Rit09]. Desk
[Hun17]. Detection [MM12, NJK19].
Developing [MHP20, TSK12, WHS+17]. Development
[AWW15, BCZ19, BCF+19, BBF+21, CG19, HM19, Ip12, JMN+22, KO22b, Lar16, MC15, Mod21, PDF15, PHRC21, RSPB17, Rit09, VS22, VGRM19, ZD15]. Devices
[RP19, TSK12]. Diagnosing [Kie09]. did
[IT13]. Didactical [BDDGT14]. Difference
[AM21]. Differences [Har21, SDBJ19].
Different [DSU20, KLM15, KA16, TAL17].
Difficult [EK17, YZC19]. Difficulties
[HLKZ12, LBK11, MS19, QL17]. Digital
[BC12, MW18, RG19]. Dimensions [TB16].
Directed [MBE+16]. Directedness
[BBSPK22]. direction [IT13]. Discipline
[MFR13, Pet19, TM10]. Discipline-Based
[MFR13]. Discovering [VGRM19].
Discrepancies [DJGIO20]. Discussion
[UCL+10]. Disrupting [RLN+22].
Distributed
[BT1+19, BCZ19, BCF+19, ORKH09].
District [PS21]. District-Wide [PS21].
Diversified [SNG+22]. Diversity
[BBVN22, BCF+19, GYS19, RBS11]. division [LGP13]. Do [BBG12, LRH+22,


Exploring
[ET12, GM11, HM19, VS22, Vog21, SNG+22].
Expository [WSP+11]. Extending
[KKNL21, MBSBA09]. Extensive [Wan11].
External [SB+18]. Eyes
[KDV22, MRG17].

Fabrication [RG19]. Facilitate [Mit14].
Facilitating [SSC18]. Factors
[DJGIO20, LRJ14, ZD15]. Faculty
[Bar09, GMM17]. Feedback
[HBVTN21, KSCP22, KJH19, ORS16].
Female [KW20, LBT20]. Fiction [GM14].
Field [SCA+10]. Final [CGZ+20].
Final-year [CGZ+20]. Finnish [KV15].
First [AL22, BHHMG21, CK09, NGK11].
First-year [AL22]. Fit [BBG12]. Fitting
[Ip12]. Flipped [LSSM19]. Flipping [IT17].
Focus [Ric09]. Following [LMGV16].
Formal [GEME14, LBT20]. Formation
[Ric09]. Formative [HBVTN21, KSCP22].
Formulation [TSV18]. Forum [CHP+18].
Forward [RS14, TM15]. FOSS [BMB+18].
Foundation [CHH+11]. Fractal [EKSW11].
Fragile [MW18]. Framework [AMD22,
FEC17, GBB+17, LSSM19, MHP20].
Frances [SPR12]. free [RMM21]. French
[BDDGT14]. friendly [NCLN13]. Fringe
[MW18]. fsQCA [PGJS17]. Functional
[IT17]. Future [TS20].

Gains [PGJS17]. Game
[DCW19, HHM19, LK19, McG12a, RWK+15,
Ri09, TAL17, VGRM19, Wan11].
Game-Based [HHM19, TAL17]. Games
[Ip12, WDC15, WDCT20]. Gamification
[AZK+20, MFCLG19, MTGM21, RPT+22].
Gap [LRW14]. Gaps [GTT20, GVA22].
Gender [BVNN22, CHP+18, Har21,
KFME11, KKNL21, RCS11, Wag16].
Generation
[BLNC09, CHU+09, EBC+21, KJH19].
Generic [SKM13]. Genesis [TC19].
Generic [GEME14]. Germany [KMB+15].
Get [MS19]. Getting [OPC17]. Girl
[OPC17]. Girls [ETN+21]. Global
[BTF+19, CB19, FDM19, IDC+19,
SGHZS19, VGRM19]. Goals
[CHP+18, MS11, SPC19, Zin15]. Google
[RSPB17]. Governance [GND19]. GPU
[DSU20]. Grade [KKNL21, SA20, TWH18].
Grades [Zin15]. Grading [AvdM21].
Graduates [SWL+22]. Graphics [She13].
GRASP [TSK12]. Greedy [VI13]. Greek
[TAL17]. Greenfoot [Kölbl0, UCK+10].
Grounded [HM22, RP19]. Group
[AvdM21, Ric09]. Groups [RBS11]. GSD
[VGRM19]. GSD-Aware [VGRM19]. GSE
[HM19]. Guest [BB10]. Guide [SH18a].
Guided [NGK11].

H [BMB+18]. H/FOSS [BMB+18].
Hackathons [Har21]. Happens [RMM21].
Hard [SPC19, WBK+22]. Hardware
[BC12, LRW14]. hegemonic [EBC+21].
help [HS13]. Helping [RT15]. Heuristic
[KM16]. High [BSS20, CKSS21, DLM11,
KLS+14, MFM+16, MSH10, TPQE18,
WW17, WDK20, ZNF+20, ZCJ20,
ZJWF11, AGEL13]. High-Level [TPQE18].
high-performance [AGEL13]. Higher
[AMD22, CJS+17, ILRD20]. Hiring
[SWL+22]. Hispanic [GHT+11].
Hispanic-Serving [GHT+11]. Hispanics
[GHT+11]. Historical
[BDDGT14, LZR21]. History [BCD10].
Holistic [NGK11]. Home [BBF+21].
Hours [PHRC21]. HTML [PDF15].
human [RC13]. human-centered [RC13].
Hybrid [LSSM19]. Hypertext [Kar09].
Hypertextbook [RV09]. Hypothesis
[GBB+17]. Hypothesis-Driven [GBB+17].
i*CATch [NCLN13]. ICT [TSK12]. IDE
[HOC17, OHR22]. IDE-Based [HOC17].
Ideas [SNOT21]. Ideation [BP21].
Identification [RJJ10]. Identify [LRJ14].
Identifying
[AANK14, GVA22, BK19, WBK+22].

Identity
[JM+22, LRH+22, MHP20, RTE21]. IEEE [DTT16]. Impact
[AZK+20, BCZ19, BJCS21, CDCLK17, KA16, LK19, LY21, MDS16, PS21, PLB+12].

Impairments
[LR11]. Implement
[HAG15b]. Implementation
[LMGVS+16, BC13]. Implementing
[AGEL13, MMFR20]. Implications
[Bur11, UR17, HWA22]. Importance
[ECF18]. Improved
[OHR22, TWH18]. Improving
[IT17]. In-Classroom
[MRG17]. In-Code
[VMFG17].

Incarceration
[SAyC+21]. Including
[PLB+12]. Inclusion
[IKWR22].

Incorporating
[DBJ19]. Increase
[CMSP+19]. Increases
[RKM20].

Incremental
[RKM20]. Incubators
[LC21].

Indian
[IP12, MAK12, MSP21]. Ineffective
[RJJ10]. Influence
[DJGIO20]. Influences
[McG12b].

Informal
[CMSP+19, GEME14, LC21, SAyC+21]. Informatics
[BLM+14, KS14].

Information
[CHI+11, KKNL21, KPM18, MHP20, MAK12, RCS11]. Informatively
[WBK+22]. Informed
[CMSP+19]. Inheritance
[LBK11]. Initial
[FU10b]. Initiatives
[PS21]. Injections
[TK16].

Insights
[SPC19, TAL17]. INSPIRED
[DLM11]. Institutional
[BMB+18, LD19]. Institutions
[CJS+17, GHT+11].

Instruction
[LIG22, MW18, SH16, LGP13]. Instructional
[IKWR22, BC13].

Instructor
[AWW15, SPC19]. Insufficient
[KV15]. Integrated
[RG19]. Integrating
[CDK+14, HAA13, SSF+19, TK16]. Integration
[BSY+10, KPM18].

Intelligence
[AMD22, LGGS22]. Intention
[ZD15]. Intentions
[DBR+20, SNG+22, TABA12]. Interaction
[CHU+09, OHR22]. Interactions
[MC19]. Interactive

[BSY+10, HEE+19, JK20, TSK12].

Intercultural
[AM21]. Interest
[BJCS21, CMSP+19, DBR+20, OPC17, ZIN15]. Interface
[CG19]. Internships
[MSP21].

Intersection
[RHSS20]. Intersectionality
[LZRO21].

Intervening
[CK17]. Intervention
[GEME14, RKM20].

Interventions
[WK19, LY21, OHR22]. Interviews
[AJNN20, JNA18]. Intro
[MMFR20].

Introducing
[CG19, KLS+14, MFR13, TM09].

Introduction
[BB10, BAR14, BAGM13, GM14, GRI3, Hub12, LRS21, LV11a, MC15, RB21, RSL22, SF19].

Introductory
[BBG12, BNP11, CKSS21, GGH+10, KLM15, KA16, LY21, QL17, SKM13, TK16, WX18, Sor13]. Inventories
[GGH+10].

Inventory
[PHP+22]. Investigating
[MS19, ZD15]. Investigation
[HSL+19, MFLG19, SS13, XIN15].

Investigations
[LGGS22]. Involvement
[BBF+21]. Involving
[SBH+18]. Israel
[GES14]. Issue
[CB19, FU10b, KG18, LV11a, LV11b, MC15, RB21, RSL22, BAGM13, GRI13]. Issues
[CAL15, KKNL21]. Italian
[BLM+14]. Iteratively
[EK17].

Java
[BNP11, BA17]. Job
[ECF18]. Justice
[AM21, ETN+21, LRS21, RSL22].

Justice-Centered
[LRS21, RSL22].

K-12
[BBSPK22, GYSH19]. Keep
[PD22].

Keeping
[Hun16]. Kingdom
[McG12a]. Kit
[NCLN13]. Know
[DBJ19]. Know-how
[SDBJ19]. Knowledge
[AJNN20, DTT16, ECF18, GGT20, JNA18, TCK21, YB19].

Korea
[CAL15].

Ladders
[LD19]. Language
[MRR+10, SPR12, SS13, Vog21].

Languages
[KA16]. Large
[BVNN22, BTF+19, BA17, SH18b].
Large-Scale [BA17]. Latina [ETN+21].
Latino [ZJWF11]. Launching [SF19].

Machine [BLNC09, Fie19, LMGVS+16, LZT+19, SSF+19, SF19, SPC19]. Machines [FU10a, Sor13]. Major [LRJ14, MDS16, SNG+22, ZJWF11].


Non
[DJHGI19, GVA22, Har21, LBT20, SPC19].
Non-Compulsory [DJHGI19].
Non-Formal [LBT20]. Non-Majors [SPC19].
Non-Technical [GVA22].
Non-traditional [Har21]. nontraditional [RC13].
Normative [Blu22]. Norms [HCSAz22].
North [KMB+15]. North-Rhine [KMB+15]. Notional [Sor13].
Novice [ABCD20, BA17, CG19, KM16, MK19, MS19, Xin15]. Novices [RT15].
NZ [BAR14].
Object
[AANK14, BS10, KKLL16, Shi16, Xin15].
Object-Oriented
[AANK14, BS10, KKLL16, Shi16, Xin15].
Objectives [PM09]. Objects [Xin15].
Online [BBG12, DJHGI19, FKG17, HM21, VMAG22, VFFT16]. Open [HM19].
operating [ZPB13]. Opportunities [CHH+11, PS21]. Optimization [SSD09].
Orientation [RCS11]. Oriented
[AAGH14, AANK14, BS10, KLS+14, KKLL16, KDXB18, RMNC10, Shi16, Xin15, d’A10, AGEL13]. Other [Fie19, QL17].
Outcome [LLKH18]. Outcomes [AZK+20, OHR22, WX18]. Outreach [LK19, LBT20]. Own [MBE+16].
Pair [BJCS21, BWE11, UR17].
Pair-Programming [UR17]. Paradigms [DSU20]. Parallel [DSUP20, BAGM13].
Participation [CHP+18, CHH+11, DDBR11, ETN+21, FKG17, KWB20, LV11a, LV11b, LZRO21, MPTV16, Pet19].
Participatory [RLN+22]. Pass [SSD09].
Pathway [LD19]. Pathways [LK19].
PatternCoder [PCH09]. Patterns [Bol22, PCH09]. Pedagogical
[TSK12, YB19, HAA13]. Pedagogy [BSS20, Ryo19, Zin15]. Peer
Persistence [CHP+18, WDK20]. Personal [McG12b]. Personalization [BSY+10].
Perspective
[AWW15, BMB+18, LIG22, TM14]. Perspectives [BDDGT14, HAGM14, IKWR22, KLS+14, YZC19]. Phase [Shi16].
Philosophical [WK10]. Physical
[RG19, NCLN13]. Picture [KWB20].
Plagiarism
Play [HHM19]. Playing [RPT+22].
POGIL [HS13]. Point [MS19, TWH18].
[RTE21, Vog21]. Powerful [RvJP20].
Practical [O’G12]. Practice
[CB19, MS11, UR17]. Practices [ALHR17, KLS+14, KFME11].
Practitioners [Fie19]. Pre
[EKSW11, LR11, MDS16, RP19].
Pre-College
[EKSW11, LR11, MDS16, RP19]. Predict
[CHP+18, LJT+19, LLR+22]. Predicting [WDK20]. Prediction [LLKH18].
Predictive [CHA17]. Predictors [CKSS21].
Preface [FU10b]. Preparation [Arm11].
Prescriptive [Blu22]. Presuppositions
[Ten14]. Primary [HAGM14, HRY17].
Principles
[DHH+15, MMFR20, ORS16, SNG+22].
Privacy [TBP21]. Privilege [RTE21].
Problem [DTT16, Kie09, O’G12].
Problem-Based [DTT16, O’G12].
Problem-Solving [Kie09]. Problems [AANK14, Kie09].
Process [CK09, HOCl7, McG12a].
Processes [RJJ10]. Processors [SH10].
Procrastination [PD22]. Product [ALHR17].
Productivity [DSU20]. Professionals [AJNN20, JNA18].
Professions [LG21]. Profiles [KPM18].
Program [DSS21, HMC22, McG12b, RSVP17, RTI5, RVI09, SKM13, UFVII9, HS13].
Programadores [Vog21]. Programme [LBT20]. Programmed [WDCT20].
Programmer [MK19, YZC19]. Programmers [ABCD20, CG19].
Programming [ASG19, AvdM21, Alb20, AAGH14, AANK14, AMSBA15, AL22, BJCS21, BWE11, BA17, BSY+10, CHA17, CK09, DSUP20, DSU20, DCW19, FKG17, GBB+17, ITI7, KKL16, KSCP22, KJH19, Köl10, KM16, KLM15, KA16, LLKH18, Lai22, LK19, LY21, LMH21, MRR+10, MMFR20, MFCG19, MCK17, MC19, MS19, NGK11, OHR22, PCH09, QL17, RKM20, RJ10, RPT+12, RS14, SKM13, SS13, TAL17, UR17, VMAG22, WX18, WW17, WDC15, WHS+17, Xin15, YZC19, BAGM13, IT13, Sor13].
Programs [BBJ+10, BS10, CMSP+19, McG12a, RBSS11]. Project [FDW19, IT17, LMGV5+16, Ric09, RMNC10, SBH+18, Wan11].
Project-Based [LMGV5+16, Ric09, RMNC10]. Projects [BH16, BMB+18, BBSPK22, DJGIO20, MSH10, Mit14, PD22, PLB+12, SH18a, SSSC18, SH18b, TBP21]. Promising [KFME11]. Promote [LR11, OHR22].
Promoting [KFME11, TBP21]. Prototype [RV09]. Prototyping [KDXB18].
Psychometric [PHP+22]. Public [BVNN22]. Purpose [TMSA22].
Purposeful [KV15]. Python [WX18].
Qualitative [AL22, YR15].
Professional [ET12, ECF18, FDW19, KPM18, PHRC21, RSVP17, SDBJ19, SSSC18, VS22, YZC19].
Professionals [AJNN20, JNA18].
Professions [LG21]. Profiles [KPM18].
Problem [DSS21, HMC22, McG12b, RSVP17, RTI5, RVI09, SKM13, UFVII9, HS13].
Programadores [Vog21]. Programme [LBT20]. Programmed [WDCT20].
Programmer [MK19, YZC19]. Programmers [ABCD20, CG19].
Programming [ASG19, AvdM21, Alb20, AAGH14, AANK14, AMSBA15, AL22, BJCS21, BWE11, BA17, BSY+10, CHA17, CK09, DSUP20, DSU20, DCW19, FKG17, GBB+17, ITI7, KKL16, KSCP22, KJH19, Köl10, KM16, KLM15, KA16, LLKH18, Lai22, LK19, LY21, LMH21, MRR+10, MMFR20, MFCG19, MCK17, MC19, MS19, NGK11, OHR22, PCH09, QL17, RKM20, RJ10, RPT+12, RS14, SKM13, SS13, TAL17, UR17, VMAG22, WX18, WW17, WDC15, WHS+17, Xin15, YZC19, BAGM13, IT13, Sor13].
Programs [BBJ+10, BS10, CMSP+19, McG12a, RBSS11]. Project [FDW19, IT17, LMGV5+16, Ric09, RMNC10, SBH+18, Wan11].
Project-Based [LMGV5+16, Ric09, RMNC10]. Projects [BH16, BMB+18, BBSPK22, DJGIO20, MSH10, Mit14, PD22, PLB+12, SH18a, SSSC18, SH18b, TBP21]. Promising [KFME11]. Promote [LR11, OHR22].
Promoting [KFME11, TBP21]. Prototype [RV09]. Prototyping [KDXB18].
Psychometric [PHP+22]. Public [BVNN22]. Purpose [TMSA22].
Purposeful [KV15]. Python [WX18].
Qualitative [AL22, YR15].
Professional [ET12, ECF18, FDW19, KPM18, PHRC21, RSVP17, SDBJ19, SSSC18, VS22, YZC19].
Professionals [AJNN20, JNA18].
Professions [LG21]. Profiles [KPM18].
Program [DSS21, HMC22, McG12b, RSVP17, RTI5, RVI09, SKM13, UFVII9, HS13].
Programadores [Vog21]. Programme [LBT20]. Programmed [WDCT20].
Programmer [MK19, YZC19]. Programmers [ABCD20, CG19].
Programming [ASG19, AvdM21, Alb20, AAGH14, AANK14, AMSBA15, AL22, BJCS21, BWE11, BA17, BSY+10, CHA17, CK09, DSUP20, DSU20, DCW19, FKG17, GBB+17, ITI7, KKL16, KSCP22, KJH19, Köl10, KM16, KLM15, KA16, LLKH18, Lai22, LK19, LY21, LMH21, MRR+10, MMFR20, MFCG19, MCK17, MC19, MS19, NGK11, OHR22, PCH09, QL17, RKM20, RJ10, RPT+12, RS14, SKM13, SS13, TAL17, UR17, VMAG22, WX18, WW17, WDC15, WHS+17, Xin15, YZC19, BAGM13, IT13, Sor13].
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Promoting [KFME11, TBP21]. Prototype [RV09]. Prototyping [KDXB18].
Psychometric [PHP+22]. Public [BVNN22]. Purpose [TMSA22].
Purposeful [KV15]. Python [WX18].
Qualitative [AL22, YR15].


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