

SQuAD2.0

The Stanford Question Answering Dataset

What is SQuAD?

Stanford Question Answering Dataset (SQuAD) is a reading comprehension dataset, consisting of questions posed by crowdworkers on a set of Wikipedia articles, where the answer to every question is a segment of text, or *span*, from the corresponding reading passage, or the question might be unanswerable.

SQuAD2.0 combines the 100,000 questions in SQuAD1.1 with over 50,000 unanswerable questions written adversarially by crowdworkers to look similar to answerable ones. To do well on SQuAD2.0, systems must not only answer questions when possible, but also determine when no answer is supported by the paragraph and abstain from answering.

(/SQuAD-explorer/explore/v2.0/dev/)

(<http://arxiv.org/abs/1806.03822>)

SQuAD 1.1, the previous version of the SQuAD dataset, contains 100,000+ question-answer pairs on 500+ articles.

(/SQuAD-explorer/explore/1.1/dev/)

(<http://arxiv.org/abs/1606.05250>)

Getting Started

We've built a few resources to help you get started with the dataset.

Download a copy of the dataset (distributed under the CC BY-SA 4.0 (<http://creativecommons.org/licenses/by-sa/4.0/legalcode>) license):

[Training Set v2.0 \(40 MB\)](#) (/SQuAD-explorer/dataset/train-v2.0.json)

[Dev Set v2.0 \(4 MB\)](#) (/SQuAD-explorer/dataset/dev-v2.0.json)

To evaluate your models, we have also made available the evaluation script we will use for official evaluation, along with a sample prediction file that the script will take as input. To run the evaluation, use `python evaluate-v2.0.py <path_to_dev-v2.0> <path_to_predictions>`.

[Evaluation Script v2.0](#)
(<https://worksheets.codalab.org/rest/bundles/0x6b567e1cf2e041ec80d7098f031c5c9e/content>)

[Sample Prediction File \(on Dev v2.0\)](https://worksheets.codalab.org/bundles/0x8731effab84f41b7b874a070e40f61e2/)
[\(https://worksheets.codalab.org/bundles/0x8731effab84f41b7b874a070e40f61e2/\)](https://worksheets.codalab.org/bundles/0x8731effab84f41b7b874a070e40f61e2/)

Once you have built a model that works to your expectations on the dev set, you submit it to get official scores on the dev and a hidden test set. To preserve the integrity of test results, we do not release the test set to the public. Instead, we require you to submit your model so that we can run it on the test set for you. Here's a tutorial walking you through official evaluation of your model:

[Submission Tutorial](https://worksheets.codalab.org/worksheets/0x8212d84ca41c4150b555a075b19ccc05/)
[\(https://worksheets.codalab.org/worksheets/0x8212d84ca41c4150b555a075b19ccc05/\)](https://worksheets.codalab.org/worksheets/0x8212d84ca41c4150b555a075b19ccc05/)

Because SQuAD is an ongoing effort, we expect the dataset to evolve.

To keep up to date with major changes to the dataset, please subscribe:

Have Questions?

Ask us questions at our google group (<https://groups.google.com/forum/#!forum/squad-stanford-qa>) or at pranavsr@stanford.edu (<mailto:pranavsr@stanford.edu>) and robinjia@stanford.edu (<mailto:robinjia@stanford.edu>).



Leaderboard

SQuAD2.0 tests the ability of a system to not only answer reading comprehension questions, but also abstain when presented with a question that cannot be answered based on the provided paragraph.

| Rank | Model | EM | F1 |
|------------------------------|---|---------------|---------------|
| | Human Performance <i>Stanford University</i> (Rajpurkar & Jia et al. '18) (http://arxiv.org/abs/1606.05250) | 86.831 | 89.452 |
| 1 <div>Apr 06, 2020</div> | SA-Net on Albert (ensemble) <i>QIANXIN</i> | 90.724 | 93.011 |
| 2 <div>May 05, 2020</div> | SA-Net-V2 (ensemble) <i>QIANXIN</i> | 90.679 | 92.948 |
| 2 <div>Apr 05, 2020</div> | Retro-Reader (ensemble) <i>Shanghai Jiao Tong University</i> http://arxiv.org/abs/2001.09694 (http://arxiv.org/abs/2001.09694) | 90.578 | 92.978 |
| 3 <div>Dec 01, 2020</div> | EntitySpanFocusV2 (ensemble) <i>RICOH_SRCB_DML</i> | 90.521 | 92.824 |

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|-------------------|--|--------|--------|
| 3 Jul 31, 2020 | ATRLP+PV (ensemble) <i>Hithink RoyalFlush</i> | 90.442 | 92.877 |
| 3 May 04, 2020 | ELECTRA+ALBERT+EntitySpanFocus (ensemble) <i>SRCB_DML</i> | 90.442 | 92.839 |
| 4 Jun 21, 2020 | ELECTRA+ALBERT+EntitySpanFocus (ensemble) <i>SRCB_DML</i> | 90.420 | 92.799 |
| 4 Sep 11, 2020 | EntitySpanFocus+AT (ensemble) <i>RICOH_SRCB_DML</i> | 90.454 | 92.748 |
| 4 Mar 12, 2020 | ALBERT + DAAF + Verifier (ensemble) <i>PINGAN Omni-Sinitic</i> | 90.386 | 92.777 |
| 5 Jan 10, 2020 | Retro-Reader on ALBERT (ensemble) <i>Shanghai Jiao Tong University</i> http://arxiv.org/abs/2001.09694 (http://arxiv.org/abs/2001.09694) | 90.115 | 92.580 |
| 6 Nov 01, 2020 | electra+nlayers+kdav (ensemble) <i>oppo.tensorlab</i> | 90.002 | 92.497 |
| 6 Nov 06, 2019 | ALBERT + DAAF + Verifier (ensemble) <i>PINGAN Omni-Sinitic</i> | 90.002 | 92.425 |
| 7 Sep 18, 2019 | ALBERT (ensemble model) <i>Google Research & TTIC</i> https://arxiv.org/abs/1909.11942 (https://arxiv.org/abs/1909.11942) | 89.731 | 92.215 |
| 7 Feb 25, 2020 | Albert_Verifier_AA_Net (ensemble) <i>QIANXIN</i> | 89.743 | 92.180 |
| 7 Jun 28, 2020 | ELECTRA+ATRLP+PV (single model) <i>Hithink RoyalFlush</i> | 89.551 | 92.366 |
| 7 Mar 28, 2020 | Retro-Reader on ELECTRA (single model) <i>Shanghai Jiao Tong University</i> http://arxiv.org/abs/2001.09694 (http://arxiv.org/abs/2001.09694) | 89.562 | 92.052 |
| 7 Mar 27, 2020 | albert+KD+transfer (ensemble) <i>Anonymous</i> | 89.461 | 92.134 |
| 8 Nov 18, 2020 | ROaD-Electra <i>single model</i> | 89.449 | 92.118 |
| 9 Apr 21, 2020 | albert+KD+transfer+twopass (single) <i>SPPD</i> | 89.111 | 91.877 |
| 9 Apr 18, 2020 | ALBERT + MTDA + SFVerifier (ensemble model) <i>Senseforth AI Research</i> https://www.senseforth.ai/ (https://www.senseforth.ai/) | 89.235 | 91.739 |

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|--------------------|--|--------|--------|
| 10 Apr 15, 2020 | ALBERT + SFVerifier (ensemble model) <i>Senseforth AI Research</i> https://www.senseforth.ai/ (https://www.senseforth.ai/) | 89.133 | 91.666 |
| 10 Apr 23, 2020 | ELECTRA+RL+EV (single model) <i>Hithink RoyalFlush</i> | 89.021 | 91.765 |
| 11 Oct 28, 2020 | electra & albert (ensemble) | 88.998 | 91.635 |
| 11 Dec 08, 2019 | ALBERT+Entailment DA (ensemble) <i>CloudWalk</i> | 88.761 | 91.745 |
| 11 May 02, 2020 | ELECTRA+EntitySpanFocus (Single model) <i>SRCB_DML</i> | 88.874 | 91.546 |
| 12 Apr 14, 2020 | SA-Net on Electra (single model) <i>QIANXIN</i> | 88.851 | 91.486 |
| 13 Mar 06, 2020 | ELECTRA (single model) <i>Google Brain & Stanford</i> | 88.716 | 91.365 |
| 14 Aug 13, 2020 | ELECTRA_ATT (single model) <i>Shanghai Jiao Tong University</i> | 88.614 | 91.303 |
| 15 Feb 24, 2020 | ALBERT (Single model) <i>SRCB_DML</i> | 88.592 | 91.286 |
| 15 Feb 20, 2020 | Tuned ALBERT (ensemble model) <i>Group Data & Analytics Cell Aditya Birla Group</i> https://www.adityabirla.com/About/group-data-and-analytics (https://www.adityabirla.com/About/group-data-and-analytics) | 88.637 | 91.230 |
| 15 Jun 24, 2020 | ALBERT + IG + NE (single model) <i>Anonymous</i> | 88.569 | 91.287 |
| 16 Jun 24, 2020 | ALBERT + IG (single model) <i>Anonymous</i> | 88.524 | 91.256 |
| 16 Jan 19, 2020 | Retro-Reader on ALBERT (single model) <i>Shanghai Jiao Tong University</i> http://arxiv.org/abs/2001.09694 (http://arxiv.org/abs/2001.09694) | 88.107 | 91.419 |
| 16 Jul 22, 2019 | XLNet + DAAF + Verifier (ensemble) <i>PINGAN Omni-Sinitic</i> | 88.592 | 90.859 |
| 16 Mar 13, 2020 | aanet_v2.0 (single model) <i>QIANXIN</i> | 88.434 | 90.918 |
| 16 Dec 08, 2019 | ALBERT+Entailment DA Verifier (single model) <i>CloudWalk</i> | 87.847 | 91.265 |
| 16 Jan 07, 2020 | ALBERT + SFVerifier (single model) <i>Senseforth AI Research</i> https://www.senseforth.ai/ (https://www.senseforth.ai/) | 88.197 | 90.830 |

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|--------------------|---|--------|--------|
| 16 Sep 16, 2019 | ALBERT (single model) Google Research & TTIC https://arxiv.org/abs/1909.11942 (https://arxiv.org/abs/1909.11942) | 88.107 | 90.902 |
| 16 Mar 30, 2020 | MTL (single model) HAPTik AI RESEARCH https://haptik.ai (https://haptik.ai) | 88.107 | 90.902 |
| 16 Jul 26, 2019 | UPM (ensemble) Anonymous | 88.231 | 90.713 |
| 16 Feb 10, 2020 | SkERT-Large (single model) Skelter Labs | 87.994 | 90.944 |
| 16 Aug 04, 2019 | XLNet + SG-Net Verifier (ensemble) Shanghai Jiao Tong University & CloudWalk https://arxiv.org/abs/1908.05147 (https://arxiv.org/abs/1908.05147) | 88.174 | 90.702 |
| 16 May 21, 2020 | albert+KD+transfer+twopass (single) SPPD | 87.949 | 90.818 |
| 16 Feb 29, 2020 | ALBERT+RL (single model) Hithink RoyalFlush | 87.870 | 90.823 |
| 16 May 22, 2020 | albert_xxlarge (single model) Zheyu Ye | 87.802 | 90.872 |
| 16 Nov 15, 2019 | XLNet (single model) Google Brain & CMU | 87.926 | 90.689 |
| 17 Feb 12, 2020 | Tuned ALBERT (single model) Group Data & Analytics Cell Aditya Birla Group https://www.adityabirla.com/About/group-data-and-analytics (https://www.adityabirla.com/About/group-data-and-analytics) | 87.847 | 90.532 |
| 17 Feb 10, 2020 | ALBERT 1.1 (single model) Anonymous | 87.700 | 90.588 |
| 18 Apr 04, 2020 | LUKE (single model) Studio Ousia & NAIST & RIKEN AIP https://arxiv.org/abs/2010.01057 (https://arxiv.org/abs/2010.01057) | 87.429 | 90.163 |
| 19 Aug 04, 2019 | XLNet + SG-Net Verifier++ (single model) Shanghai Jiao Tong University & CloudWalk https://arxiv.org/abs/1908.05147 (https://arxiv.org/abs/1908.05147) | 87.238 | 90.071 |
| 20 Jul 26, 2019 | UPM (single model) Anonymous | 87.193 | 89.934 |
| 20 Nov 27, 2019 | RoBERTa+Verify (ensemble) CW | 86.933 | 90.037 |

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|--------------------|---|--------|--------|
| 20 Mar 20, 2019 | BERT + DAE + AoA (ensemble) <i>Joint Laboratory of HIT and iFLYTEK Research</i> | 87.147 | 89.474 |
| 20 Jul 20, 2019 | RoBERTa (single model) <i>Facebook AI</i> | 86.820 | 89.795 |
| 21 Nov 12, 2019 | RoBERTa+Verify (single model) <i>CW</i> | 86.448 | 89.586 |
| 21 Mar 15, 2019 | BERT + ConvLSTM + MTL + Verifier (ensemble) <i>Layer 6 AI</i> | 86.730 | 89.286 |
| 22 Mar 05, 2019 | BERT + N-Gram Masking + Synthetic Self-Training (ensemble) <i>Google AI Language</i> https://github.com/google-research/bert (https://github.com/google-research/bert) | 86.673 | 89.147 |
| 22 May 29, 2020 | Enhanced Albert+Verifier (ensemble) <i>Microsoft STCA AIC</i> | 86.098 | 89.634 |
| 22 Oct 16, 2019 | Xlnet+Verifier <i>single model</i> | 86.594 | 89.082 |
| 23 Aug 30, 2019 | Xlnet+Verifier (single model) <i>Ping An Life Insurance Company AI Team</i> | 86.572 | 89.063 |
| 23 May 30, 2020 | Enhanced Albert+Verifier3 (ensemble) <i>Microsoft STCA AIC</i> | 85.827 | 89.778 |
| 23 Dec 09, 2019 | XLNET-V2-123+ (single model) <i>MST/EOI</i> http://tia.today (http://tia.today) | 86.403 | 89.148 |
| 24 May 21, 2019 | XLNet (single model) <i>Google Brain & CMU</i> | 86.346 | 89.133 |
| 25 May 14, 2019 | SG-Net (ensemble) <i>Shanghai Jiao Tong University</i> https://arxiv.org/abs/1908.05147 (https://arxiv.org/abs/1908.05147) | 86.211 | 88.848 |
| 25 Apr 14, 2019 | SemBERT (ensemble) <i>Shanghai Jiao Tong University</i> https://arxiv.org/abs/1909.02209 (https://arxiv.org/abs/1909.02209) | 86.166 | 88.886 |
| 25 Sep 29, 2019 | BERTSP (single model) <i>NEUKG</i> http://www.techkg.cn/--please (http://www.techkg.cn/--please) | 85.838 | 88.921 |
| 25 Sep 22, 2020 | RoBERTa-Large (ensemble model) <i>SAIL</i> | 85.872 | 88.793 |
| 25 Mar 16, 2019 | BERT + DAE + AoA (single model) <i>Joint Laboratory of HIT and iFLYTEK Research</i> | 85.884 | 88.621 |

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| 25 Jul 22, 2019 | SpanBERT (single model) <i>FAIR & UW</i> | 85.748 | 88.709 |
| 26 Sep 22, 2020 | RoBERTa-Large (single model) <i>SAIL</i> | 85.173 | 88.425 |
| 26 May 14, 2019 | SG-Net (single model) <i>Shanghai Jiao Tong University</i> https://arxiv.org/abs/1908.05147 (https://arxiv.org/abs/1908.05147) | 85.229 | 87.926 |
| 26 Mar 13, 2019 | BERT + ConvLSTM + MTL + Verifier (single model) <i>Layer 6 AI</i> | 84.924 | 88.204 |
| 26 Mar 05, 2019 | BERT + N-Gram Masking + Synthetic Self-Training (single model) <i>Google AI Language</i> https://github.com/google-research/bert (https://github.com/google-research/bert) | 85.150 | 87.715 |
| 26 Jun 19, 2019 | BNDVnet (single model) <i>PAOS</i> | 85.003 | 87.833 |
| 26 Jan 15, 2019 | BERT + MMFT + ADA (ensemble) <i>Microsoft Research Asia</i> | 85.082 | 87.615 |
| 26 Apr 11, 2019 | SemBERT (single model) <i>Shanghai Jiao Tong University</i> https://arxiv.org/abs/1909.02209 (https://arxiv.org/abs/1909.02209) | 84.800 | 87.864 |
| 26 Sep 13, 2019 | xlnet (single model) <i>VerifiedXiaoPAI</i> | 84.642 | 88.000 |
| 26 Apr 16, 2019 | Insight-baseline-BERT (single model) <i>PAII Insight Team</i> | 84.834 | 87.644 |
| 27 Sep 03, 2019 | Hanvon_model (single model) <i>Hanvon_WuHan</i> | 84.721 | 87.117 |
| 28 Jan 10, 2019 | BERT + Synthetic Self-Training (ensemble) <i>Google AI Language</i> https://github.com/google-research/bert (https://github.com/google-research/bert) | 84.292 | 86.967 |
| 29 Nov 08, 2019 | BERT + Multiple-CNN (ensemble) <i>Kyonggi University (ICL) & KISTI</i> | 84.202 | 86.767 |
| 30 Jul 22, 2019 | Tuned BERT-1seq Large Cased (single model) <i>FAIR & UW</i> | 83.751 | 86.594 |
| 31 Mar 20, 2019 | Bert-raw (ensemble) <i>None</i> | 83.604 | 86.036 |
| 31 Dec 13, 2018 | BERT finetune baseline (ensemble) <i>Anonymous</i> | 83.536 | 86.096 |

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| 31 Dec 21, 2018 | PAML+BERT (ensemble model) <i>PINGAN GammaLab</i> | 83.457 | 86.122 |
| 31 Dec 16, 2018 | Lunet + Verifier + BERT (ensemble) <i>Layer 6 AI NLP Team</i> | 83.469 | 86.043 |
| 32 Dec 15, 2018 | Lunet + Verifier + BERT (single model) <i>Layer 6 AI NLP Team</i> | 82.995 | 86.035 |
| 32 Jun 21, 2019 | SENSEFORTH + BERT <i>single</i> https://senseforth.ai (https://senseforth.ai) | 83.142 | 85.873 |
| 32 Jan 14, 2019 | BERT + MMFT + ADA (single model) <i>Microsoft Research Asia</i> | 83.040 | 85.892 |
| 32 May 14, 2019 | ATB (single model) <i>Anonymous</i> | 82.882 | 86.002 |
| 32 Feb 16, 2019 | Bert-raw (ensemble) <i>None</i> | 83.175 | 85.635 |
| 32 Feb 26, 2019 | BERT with Something (ensemble) <i>Anonymous</i> | 83.051 | 85.737 |
| 32 Jan 10, 2019 | BERT + Synthetic Self-Training (single model) <i>Google AI Language</i> https://github.com/google-research/bert (https://github.com/google-research/bert) | 82.972 | 85.810 |
| 32 Jul 22, 2019 | Tuned BERT Large Cased (single model) <i>FAIR & UW</i> | 82.803 | 85.863 |
| 32 Mar 11, 2019 | Bert-raw (ensemble) <i>None</i> | 83.119 | 85.510 |
| 32 Feb 15, 2019 | BERT + NeurQuRI (ensemble) <i>2SAH</i> | 82.803 | 85.703 |
| 33 Feb 28, 2019 | BERT + NeurQuRI (ensemble) <i>2SAH</i> | 82.713 | 85.584 |
| 33 May 13, 2019 | BERT-Base + QA Pre-training (single model) <i>Anonymous</i> | 82.724 | 85.491 |
| 33 Dec 16, 2018 | PAML+BERT (single model) <i>PINGAN GammaLab</i> | 82.577 | 85.603 |
| 34 Nov 16, 2018 | AoA + DA + BERT (ensemble) <i>Joint Laboratory of HIT and iFLYTEK Research</i> | 82.374 | 85.310 |
| 35 Dec 12, 2018 | BERT finetune baseline (single model) <i>Anonymous</i> | 82.126 | 84.820 |
| 35 Sep 22, 2020 | BERT-Base PMI-Masking Additional Data (single model) <i>AI21 Labs</i> | 82.024 | 84.854 |

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| 36 Feb 28, 2019 | BERT_s (single model) <i>Anonymous</i> | 81.979 | 84.846 |
| 37 Feb 28, 2019 | BERT-large+UBFT (single model) <i>anonymous</i> | 81.573 | 84.535 |
| 38 Feb 15, 2019 | BERT + NeurQuRI (single model) <i>2SAH</i> | 81.257 | 84.342 |
| 38 Feb 25, 2019 | BERT with Something (single model) <i>Anonymous</i> | 81.110 | 84.386 |
| 38 Nov 16, 2018 | AoA + DA + BERT (single model) <i>Joint Laboratory of HIT and iFLYTEK Research</i> | 81.178 | 84.251 |
| 39 Mar 20, 2019 | Bert-raw (single) <i>None</i> | 80.693 | 83.922 |
| 39 Mar 07, 2019 | BERT + UnAnsQ (single model) <i>Anonymous</i> | 80.749 | 83.851 |
| 39 Sep 22, 2020 | BERT-Base PMI-Masking (single model) <i>AI21 Labs</i> | 80.896 | 83.604 |
| 40 Jan 22, 2019 | BERT + NeurQuRI (single model) <i>2SAH</i> | 80.591 | 83.391 |
| 40 Mar 12, 2019 | Bert-raw (single) <i>None</i> | 80.411 | 83.457 |
| 41 Sep 22, 2020 | PMI-Masking Additional Data Random Baseline (single model) <i>AI21 Labs</i> | 80.377 | 83.262 |
| 42 Feb 16, 2019 | Bert-raw (single model) <i>None</i> | 80.343 | 83.243 |
| 42 May 29, 2019 | Bert <i>Single Model</i> https://senseforth.ai (https://senseforth.ai) | 80.422 | 83.118 |
| 42 Sep 23, 2020 | PMI-Masking Pure-PMI (single model) <i>AI21 Labs</i> | 80.241 | 83.175 |
| 43 Apr 04, 2019 | BISAN-CC (single model) <i>Seoul National University & Hyundai Motors</i> | 80.208 | 83.149 |
| 43 Dec 03, 2018 | PwP+BERT (single model) <i>AITRICS</i> | 80.117 | 83.189 |
| 43 Jul 22, 2019 | Original BERT Large Cased (single model) <i>FAIR & UW</i> | 79.971 | 83.266 |
| 43 Feb 19, 2019 | BERT + UDA (single model) <i>Anonymous</i> | 80.005 | 83.208 |
| 44 Apr 10, 2019 | bert (single model) <i>vinda msqjmx</i> | 79.971 | 83.184 |

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| 44 Feb 28, 2019 | ST_bl <i>single model</i> | 80.140 | 82.962 |
| 44 Nov 09, 2018 | BERT (single model) <i>Google AI Language</i> | 80.005 | 83.061 |
| 45 Sep 23, 2020 | PMI-Masking Additional Data Pure-PMI (single model) <i>AI21 Labs</i> | 79.993 | 83.039 |
| 46 Feb 12, 2019 | BERT + Sparse-Transformer <i>single model</i> | 79.948 | 83.023 |
| 46 Sep 22, 2020 | PMI-Masking Random Baseline (single model) <i>AI21 Labs</i> | 80.038 | 82.796 |
| 46 Mar 07, 2019 | BERT uncased (single model) <i>Anonymous</i> | 79.745 | 83.020 |
| 46 Dec 06, 2018 | NEXYS_BASE (single model) <i>NEXYS, DGIST R7</i> | 79.779 | 82.912 |
| 47 Feb 02, 2019 | {bert-finetuning} (single model) <i>ksai</i> | 79.632 | 82.852 |
| 48 Feb 25, 2020 | BERT-Large-Cased <i>single model</i> | 79.610 | 82.692 |
| 49 Nov 09, 2018 | L6Net + BERT (single model) <i>Layer 6 AI</i> | 79.181 | 82.259 |
| 49 Mar 14, 2019 | {Anonymous} (single model) <i>Anonymous</i> | 78.876 | 82.524 |
| 50 Apr 24, 2019 | BERT + WIAN (ensemble) <i>Infosys Limited</i> | 78.650 | 81.497 |
| 51 Aug 03, 2020 | AMBERT (single model) <i>ByteDance</i> | 78.594 | 81.445 |
| 51 Mar 14, 2019 | BISAN (single model) <i>Seoul National University & Hyundai Motors</i> | 78.481 | 81.531 |
| 52 Dec 26, 2019 | BERT-Large-Cased <i>single model</i> | 78.357 | 81.500 |
| 53 Dec 14, 2018 | BERT+AC (single model) <i>Hithink RoyalFlush</i> | 78.052 | 81.174 |
| 54 Aug 03, 2020 | BERT (single model) <i>ByteDance</i> | 77.319 | 80.310 |
| 55 Nov 06, 2018 | SLQA+BERT (single model) <i>Alibaba DAMO NLP</i> http://www.aclweb.org/anthology/P18-1158 (http://www.aclweb.org/anthology/P18-1158) | 77.003 | 80.209 |
| 56 Aug 03, 2020 | AMBERT-H (single model) <i>ByteDance</i> | 76.710 | 79.659 |

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| 56 Aug 03, 2020 | AMBERT-S (single model) <i>ByteDance</i> | 76.563 | 79.776 |
| 57 Jan 05, 2019 | synss (single model) <i>bert_finetune</i> | 76.055 | 79.329 |
| 58 Dec 19, 2018 | ARSG-BERT (single model) <i>TRINITY RESEARCH LABS, Active.ai</i> https://active.ai (https://active.ai) | 74.746 | 78.227 |
| 58 Aug 29, 2020 | BERT-Base-V (single model) <i>Anonymous</i> | 75.073 | 77.805 |
| 58 Nov 05, 2018 | MIR-MRC(F-Net) (single model) <i>Kangwon National University, Natural Language Processing Lab. & ForceWin, KP Lab.</i> | 74.791 | 77.988 |
| 59 Aug 06, 2020 | BERT-Base-DT (single model) <i>Anonymous</i> | 74.769 | 77.706 |
| 60 Dec 03, 2020 | BERT-Base-V2 <i>single model</i> | 74.656 | 77.404 |
| 61 Aug 14, 2020 | BERT-Base-Add (single model) <i>Anonymous</i> | 74.329 | 77.396 |
| 61 May 23, 2019 | {BERTcw} (single model) <i>private</i> | 74.385 | 77.308 |
| 62 Sep 13, 2018 | nlnet (single model) <i>Microsoft Research Asia</i> | 74.272 | 77.052 |
| 63 Jan 13, 2020 | batch2 (single model) <i>THU</i> | 73.742 | 76.858 |
| 64 Dec 29, 2018 | MMIPN <i>Single</i> | 73.505 | 76.424 |
| 65 Aug 09, 2020 | BERT-Base-Baseline (single model) <i>Anonymous</i> | 73.302 | 76.284 |
| 66 Apr 20, 2019 | BERT-Base (single model) <i>Dining Philosophers</i> | 73.099 | 76.236 |
| 67 Oct 12, 2018 | YARCS (ensemble) <i>IBM Research AI</i> | 72.670 | 75.507 |
| 67 Apr 23, 2020 | BERT-base <i>single model</i> | 72.072 | 75.513 |
| 67 Apr 25, 2020 | BERTBase (single model) <i>Anonymous</i> | 72.072 | 75.513 |
| 68 Nov 14, 2018 | BERT+Answer Verifier (single model) <i>Pingan Tech Olatop Lab</i> | 71.666 | 75.457 |

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|--------------------|--|--------|--------|
| 69 Sep 17, 2018 | Unet (ensemble) <i>Fudan University & Liulishuo Lab</i> https://arxiv.org/abs/1810.06638 (https://arxiv.org/abs/1810.06638) | 71.417 | 74.869 |
| 69 Apr 25, 2019 | BERT-Base (single) <i>GreenflyAI</i> https://greenfly.ai (https://greenfly.ai) | 71.699 | 74.430 |
| 69 Aug 15, 2018 | Reinforced Mnemonic Reader + Answer Verifier (single model) <i>NUDT</i> https://arxiv.org/abs/1808.05759 (https://arxiv.org/abs/1808.05759) | 71.767 | 74.295 |
| 69 Aug 28, 2018 | SLQA+ (single model) <i>Alibaba DAMO NLP</i> http://www.aclweb.org/anthology/P18-1158 (http://www.aclweb.org/anthology/P18-1158) | 71.462 | 74.434 |
| 69 Jan 19, 2019 | {BERT-base} (single-model) <i>Anonymous</i> | 70.763 | 74.449 |
| 69 Sep 14, 2018 | SAN (ensemble model) <i>Microsoft Business Applications AI Research</i> https://arxiv.org/abs/1712.03556 (https://arxiv.org/abs/1712.03556) | 71.316 | 73.704 |
| 70 Aug 21, 2018 | FusionNet++ (ensemble) <i>Microsoft Business Applications Group AI Research</i> https://arxiv.org/abs/1711.07341 (https://arxiv.org/abs/1711.07341) | 70.300 | 72.484 |
| 70 Sep 26, 2018 | Multi-Level Attention Fusion(MLAF) (single model) <i>Chonbuk National University, Cognitive Computing Lab.</i> | 69.476 | 72.857 |
| 71 Sep 14, 2018 | Unet (single model) <i>Fudan University & Liulishuo Lab</i> | 69.262 | 72.642 |
| 72 Dec 20, 2018 | DocQA + NeurQuRI (single model) <i>2SAH</i> | 68.766 | 71.662 |
| 73 Aug 21, 2018 | SAN (single model) <i>Microsoft Business Applications AI Research</i> https://arxiv.org/abs/1712.03556 (https://arxiv.org/abs/1712.03556) | 68.653 | 71.439 |
| 73 Sep 13, 2018 | BiDAF++ with pair2vec (single model) <i>UW and FAIR</i> | 68.021 | 71.583 |
| 73 Jun 25, 2018 | KACTEIL-MRC(GFN-Net) (single model) <i>Kangwon National University, Natural Language Processing Lab.</i> | 68.213 | 70.878 |
| 73 Jul 13, 2018 | VS^3-NET (single model) <i>Kangwon National University in South Korea</i> | 67.897 | 70.884 |
| 74 Jan 02, 2019 | EBB-Net (single model) <i>Enliple AI</i> | 66.610 | 70.303 |

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|--------------------|---|--------|--------|
| 75 Jun 25, 2018 | KakaoNet2 (single model) <i>Kakao NLP Team</i> | 65.719 | 69.381 |
| 76 Sep 13, 2018 | BiDAF++ (single model) <i>UW and FAIR</i> | 65.651 | 68.866 |
| 76 Jul 11, 2018 | abcNet (single model) <i>Fudan University & Liulishuo AI Lab</i> | 65.256 | 69.206 |
| 77 Jun 27, 2018 | BSAE AddText (single model) <i>reciTAL.ai</i> | 63.338 | 67.422 |
| 78 Aug 14, 2018 | eeAttNet (single model) <i>BBD NLP Team</i> https://www.bbdservice.com (https://www.bbdservice.com) | 63.327 | 66.633 |
| 78 May 30, 2018 | BiDAF + Self Attention + ELMo (single model) <i>Allen Institute for Artificial Intelligence [modified by Stanford]</i> | 63.372 | 66.251 |
| 79 May 30, 2018 | BiDAF + Self Attention (single model) <i>Allen Institute for Artificial Intelligence [modified by Stanford]</i> | 59.332 | 62.305 |
| 80 May 30, 2018 | BiDAF-No-Answer (single model) <i>University of Washington [modified by Stanford]</i> | 59.174 | 62.093 |
| 80 Nov 27, 2018 | Tree-LSTM + BiDAF + ELMo (single model) <i>Carnegie Mellon University</i> | 57.707 | 62.341 |

SQuAD1.1 Leaderboard

Here are the ExactMatch (EM) and F1 scores evaluated on the test set of SQuAD v1.1.

| Rank | Model | EM | F1 |
|-------------------|---|--------|--------|
| | Human Performance <i>Stanford University</i> (Rajpurkar et al. '16) (http://arxiv.org/abs/1606.05250) | 82.304 | 91.221 |
| 1 Apr 10, 2020 | LUKE (single model) <i>Studio Ousia & NAIST & RIKEN AIP</i> | 90.202 | 95.379 |
| 2 May 21, 2019 | XLNet (single model) <i>Google Brain & CMU</i> | 89.898 | 95.080 |
| 3 Dec 11, 2019 | XLNET-123++ (single model) <i>MST/EOI</i> http://tia.today (http://tia.today) | 89.856 | 94.903 |
| 3 Aug 11, 2019 | XLNET-123 (single model) <i>MST/EOI</i> | 89.646 | 94.930 |

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|--------------------|---|--------|--------|
| 4 Sep 25, 2019 | BERTSP (single model) NEUKG http://www.techkg.cn/ (http://www.techkg.cn/) | 88.912 | 94.584 |
| 4 Jul 21, 2019 | SpanBERT (single model) FAIR & UW | 88.839 | 94.635 |
| 5 Jul 03, 2019 | BERT+WWM+MT (single model) Xiaoi Research | 88.650 | 94.393 |
| 6 Jul 21, 2019 | Tuned BERT-1seq Large Cased (single model) FAIR & UW | 87.465 | 93.294 |
| 7 Oct 05, 2018 | BERT (ensemble) Google AI Language https://arxiv.org/abs/1810.04805 (https://arxiv.org/abs/1810.04805) | 87.433 | 93.160 |
| 8 May 14, 2019 | ATB (single model) Anonymous | 86.940 | 92.641 |
| 9 Jul 21, 2019 | Tuned BERT Large Cased (single model) FAIR & UW | 86.521 | 92.617 |
| 9 Jul 04, 2019 | BERT+MT (single model) Xiaoi Research | 86.458 | 92.645 |
| 10 Feb 14, 2019 | KT-NET (single model) Baidu NLP | 85.944 | 92.425 |
| 10 Sep 27, 2018 | nlnet (ensemble) Microsoft Research Asia | 85.954 | 91.677 |
| 10 Feb 28, 2019 | ST_bl single model | 85.430 | 91.976 |
| 11 Nov 21, 2019 | EL-BERT (single model) YeonTaek Oh | 85.335 | 91.807 |
| 12 Mar 14, 2019 | BISAN (single model) Seoul National University & Hyundai Motors | 85.314 | 91.756 |
| 12 Jun 03, 2019 | DPN (single model) Anonymous | 84.978 | 92.019 |
| 12 Oct 05, 2018 | BERT (single model) Google AI Language https://arxiv.org/abs/1810.04805 (https://arxiv.org/abs/1810.04805) | 85.083 | 91.835 |
| 12 Jul 11, 2019 | BERT-uncased (single model) Anonymous | 84.926 | 91.932 |
| 12 Feb 16, 2019 | BERT+Sparse-Transformer single model | 85.125 | 91.623 |
| 12 Sep 09, 2018 | nlnet (ensemble) Microsoft Research Asia | 85.356 | 91.202 |

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|--------------------|--|--------|--------|
| 12 Jul 21, 2019 | Original BERT Large Cased (single model) <i>FAIR & UW</i> | 84.328 | 91.281 |
| 12 Feb 19, 2019 | WD (single model) <i>Anonymous</i> | 84.402 | 90.561 |
| 12 Jul 11, 2018 | QANet (ensemble) <i>Google Brain & CMU</i> | 84.454 | 90.490 |
| 12 Apr 21, 2019 | Common-sense Governed BERT-123 (single model) <i>Jerry AGI Ragtag</i> | 83.930 | 90.613 |
| 13 Feb 21, 2019 | WD1 (single model) <i>Anonymous</i> | 83.804 | 90.429 |
| 13 Jul 08, 2018 | r-net (ensemble) <i>Microsoft Research Asia</i> | 84.003 | 90.147 |
| 13 May 08, 2019 | Common-sense Governed BERT-123 (single model) <i>MST/EOI</i> | 82.943 | 91.074 |
| 13 Jun 20, 2018 | MARS (ensemble) <i>YUANFUDAO research NLP</i> | 83.982 | 89.796 |
| 14 Mar 19, 2018 | QANet (ensemble) <i>Google Brain & CMU</i> | 83.877 | 89.737 |
| 14 Sep 09, 2018 | nlnet (single model) <i>Microsoft Research Asia</i> | 83.468 | 90.133 |
| 15 Sep 01, 2018 | MARS (single model) <i>YUANFUDAO research NLP</i> | 83.185 | 89.547 |
| 16 Jun 21, 2018 | MARS (single model) <i>YUANFUDAO research NLP</i> | 83.122 | 89.224 |
| 17 Mar 06, 2018 | QANet (ensemble) <i>Google Brain & CMU</i> | 82.744 | 89.045 |
| 17 Jun 20, 2018 | QANet (single) <i>Google Brain & CMU</i> | 82.471 | 89.306 |
| 17 Jan 22, 2018 | Hybrid AoA Reader (ensemble) <i>Joint Laboratory of HIT and iFLYTEK Research</i> | 82.482 | 89.281 |
| 17 Feb 19, 2018 | Reinforced Mnemonic Reader + A2D (ensemble model) <i>Microsoft Research Asia & NUDT</i> | 82.849 | 88.764 |
| 17 May 09, 2018 | MARS (single model) <i>YUANFUDAO research NLP</i> | 82.587 | 88.880 |
| 17 Jan 03, 2018 | r-net+ (ensemble) <i>Microsoft Research Asia</i> | 82.650 | 88.493 |
| 17 Jan 05, 2018 | SLQA+ (ensemble) <i>Alibaba iDST NLP</i> | 82.440 | 88.607 |

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|--------------------|--|--------|--------|
| 17 Jul 14, 2019 | BERT (single model) KTNET | 82.062 | 88.947 |
| 17 Feb 28, 2018 | QANet (single model) Google Brain & CMU | 82.209 | 88.608 |
| 17 Feb 02, 2018 | Reinforced Mnemonic Reader (ensemble model) NUDT and Fudan University https://arxiv.org/abs/1705.02798 (https://arxiv.org/abs/1705.02798) | 82.283 | 88.533 |
| 17 Dec 24, 2018 | MMIPN Single | 81.580 | 88.948 |
| 17 Dec 17, 2017 | r-net (ensemble) Microsoft Research Asia http://aka.ms/rnet (http://aka.ms/rnet) | 82.136 | 88.126 |
| 17 Dec 17, 2018 | ARSG-BERT (single model) TRINITY RESEARCH LABS, Active.ai https://active.ai (https://active.ai) | 81.307 | 88.909 |
| 17 Dec 22, 2017 | AttentionReader+ (ensemble) Tencent DPDAC NLP | 81.790 | 88.163 |
| 18 May 09, 2018 | Reinforced Mnemonic Reader + A2D (single model) Microsoft Research Asia & NUDT | 81.538 | 88.130 |
| 18 Apr 23, 2018 | r-net (single model) Microsoft Research Asia | 81.391 | 88.170 |
| 18 May 09, 2018 | Reinforced Mnemonic Reader + A2D + DA (single model) Microsoft Research Asia & NUDT | 81.401 | 88.122 |
| 18 Apr 03, 2018 | KACTEIL-MRC(GF-Net+) (ensemble) Kangwon National University, Natural Language Processing Lab. | 81.496 | 87.557 |
| 18 Feb 27, 2018 | QANet (single model) Google Brain & CMU | 80.929 | 87.773 |
| 18 Nov 17, 2017 | BiDAF + Self Attention + ELMo (ensemble) Allen Institute for Artificial Intelligence | 81.003 | 87.432 |
| 18 Feb 19, 2018 | Reinforced Mnemonic Reader + A2D (single model) Microsoft Research Asia & NUDT | 80.919 | 87.492 |
| 18 Mar 11, 2020 | batch (single model) THU | 79.859 | 88.263 |
| 18 Feb 12, 2018 | Reinforced Mnemonic Reader + A2D (single model) Microsoft Research Asia & NUDT | 80.489 | 87.454 |
| 18 Apr 12, 2018 | AVIQA+ (ensemble) aviqa team | 80.615 | 87.311 |
| 19 Jan 13, 2018 | SLQA+ single model | 80.436 | 87.021 |

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|--------------------|--|--------|--------|
| 19 Jan 04, 2018 | {Eazi} (ensemble) Yiwise NLP Group | 80.436 | 86.912 |
| 19 Jan 12, 2018 | Eazi+ (ensemble) Yiwise NLP Group | 80.426 | 86.912 |
| 19 Jan 22, 2018 | Hybrid AoA Reader (single model) Joint Laboratory of HIT and iFLYTEK Research | 80.027 | 87.288 |
| 19 Jan 06, 2020 | BERT-INDEPENDENT-DSS-FILTERED (single model) Brno University of Technology | 79.597 | 87.374 |
| 19 Mar 20, 2018 | DNET (ensemble) QA geeks | 80.164 | 86.721 |
| 20 Feb 13, 2018 | BiDAF + Self Attention + ELMo + A2D (single model) Microsoft Research Asia & NUDT | 79.996 | 86.711 |
| 21 Jan 03, 2018 | r-net+ (single model) Microsoft Research Asia | 79.901 | 86.536 |
| 21 Feb 23, 2018 | MAMCN+ (single model) Samsung Research | 79.692 | 86.727 |
| 22 Jan 29, 2018 | Reinforced Mnemonic Reader (single model) NUDT and Fudan University https://arxiv.org/abs/1705.02798 (https://arxiv.org/abs/1705.02798) | 79.545 | 86.654 |
| 22 Dec 05, 2017 | SAN (ensemble model) Microsoft Business AI Solutions Team https://arxiv.org/abs/1712.03556 (https://arxiv.org/abs/1712.03556) | 79.608 | 86.496 |
| 22 Dec 28, 2017 | SLQA+ (single model) Alibaba iDST NLP | 79.199 | 86.590 |
| 23 Oct 18, 2017 | Interactive AoA Reader+ (ensemble) Joint Laboratory of HIT and iFLYTEK | 79.083 | 86.450 |
| 23 Nov 05, 2018 | KACTEIL-MRC(GF-Net+Distillation) (single model) Kangwon National University, Natural Language Processing Lab. | 79.083 | 86.288 |
| 24 Jun 02, 2018 | MDReader single model | 79.031 | 86.006 |
| 24 Oct 24, 2017 | FusionNet (ensemble) Microsoft Business AI Solutions Team https://arxiv.org/abs/1711.07341 (https://arxiv.org/abs/1711.07341) | 78.978 | 86.016 |
| 25 Oct 22, 2017 | DCN+ (ensemble) Salesforce Research https://arxiv.org/abs/1711.00106 (https://arxiv.org/abs/1711.00106) | 78.852 | 85.996 |

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| 26 Mar 30, 2018 | KACTEIL-MRC(GF-Net+) (single model) <i>Kangwon National University, Natural Language Processing Lab.</i> | 78.664 | 85.780 |
| 26 Nov 03, 2017 | BiDAF + Self Attention + ELMo (single model) <i>Allen Institute for Artificial Intelligence</i> | 78.580 | 85.833 |
| 27 May 10, 2018 | KakaoNet (single model) <i>Kakao NLP Team</i> | 78.401 | 85.724 |
| 28 Nov 30, 2017 | SLQA (ensemble) <i>Alibaba iDST NLP</i> | 78.328 | 85.682 |
| 28 Mar 19, 2018 | aviqa (ensemble) <i>aviqa team</i> | 78.496 | 85.469 |
| 28 Jan 02, 2018 | Conductor-net (ensemble) CMU https://arxiv.org/abs/1710.10504 (https://arxiv.org/abs/1710.10504) | 78.433 | 85.517 |
| 28 Sep 18, 2018 | BiDAF++ with pair2vec (single model) <i>UW and FAIR</i> | 78.223 | 85.535 |
| 28 Jun 01, 2018 | MDReader0 <i>single model</i> | 78.171 | 85.543 |
| 28 Jan 03, 2018 | MEMEN (single model) <i>Zhejiang University</i> https://arxiv.org/abs/1707.09098 (https://arxiv.org/abs/1707.09098) | 78.234 | 85.344 |
| 28 Jan 29, 2018 | test <i>single</i> | 78.087 | 85.348 |
| 29 Jul 26, 2017 | Interactive AoA Reader (ensemble) <i>Joint Laboratory of HIT and iFLYTEK Research</i> | 77.845 | 85.297 |
| 30 Mar 20, 2018 | DNET (single model) <i>QA geeks</i> | 77.646 | 84.905 |
| 31 Sep 18, 2018 | BiDAF++ (single model) <i>UW and FAIR</i> | 77.573 | 84.858 |
| 31 Dec 06, 2017 | AttentionReader+ (single) <i>Tencent DPDAC NLP</i> | 77.342 | 84.925 |
| 31 Dec 14, 2017 | RaSoR + TR + LM (single model) <i>Tel-Aviv University</i> https://arxiv.org/abs/1712.03609 (https://arxiv.org/abs/1712.03609) | 77.583 | 84.163 |
| 31 Dec 21, 2017 | Jenga (ensemble) <i>Facebook AI Research</i> | 77.237 | 84.466 |

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|--------------------|--|--------|--------|
| 31 Nov 06, 2017 | Conductor-net (ensemble) CMU https://arxiv.org/abs/1710.10504 (https://arxiv.org/abs/1710.10504) | 76.996 | 84.630 |
| 31 Jan 23, 2018 | MARS (single model) YUANFUDAO research NLP | 76.859 | 84.739 |
| 32 May 14, 2018 | VS^3-NET (single model) Kangwon National University in South Korea | 76.775 | 84.491 |
| 32 Nov 01, 2017 | SAN (single model) Microsoft Business AI Solutions Team https://arxiv.org/abs/1712.03556 (https://arxiv.org/abs/1712.03556) | 76.828 | 84.396 |
| 32 Sep 26, 2018 | {gqa} (single model) FAIR | 77.090 | 83.931 |
| 32 Dec 19, 2017 | FRC (single model) in review | 76.240 | 84.599 |
| 32 Oct 13, 2017 | r-net (single model) Microsoft Research Asia http://aka.ms/rnet (http://aka.ms/rnet) | 76.461 | 84.265 |
| 33 Oct 22, 2017 | Conductor-net (ensemble) CMU | 76.146 | 83.991 |
| 34 Sep 08, 2017 | FusionNet (single model) Microsoft Business AI Solutions team https://arxiv.org/abs/1711.07341 (https://arxiv.org/abs/1711.07341) | 75.968 | 83.900 |
| 35 Oct 22, 2017 | Interactive AoA Reader+ (single model) Joint Laboratory of HIT and iFLYTEK | 75.821 | 83.843 |
| 35 Oct 18, 2018 | KAR (single model) York University https://arxiv.org/abs/1809.03449 (https://arxiv.org/abs/1809.03449) | 76.125 | 83.538 |
| 36 Jul 14, 2017 | smarnet (ensemble) Eigen Technology & Zhejiang University | 75.989 | 83.475 |
| 37 Mar 15, 2018 | AVIQA-v2 (single model) aviqa team | 75.926 | 83.305 |
| 38 Aug 18, 2017 | RaSoR + TR (single model) Tel-Aviv University https://arxiv.org/abs/1712.03609 (https://arxiv.org/abs/1712.03609) | 75.789 | 83.261 |
| 38 Mar 20, 2020 | Kbs (single model) Tsinghua University | 75.034 | 83.405 |

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| 38 Oct 23, 2017 | DCN+ (single model) <i>Salesforce Research</i> https://arxiv.org/abs/1711.00106 (https://arxiv.org/abs/1711.00106) | 75.087 | 83.081 |
| 38 Nov 01, 2017 | Mixed model (ensemble) <i>Sean</i> | 75.265 | 82.769 |
| 38 May 21, 2017 | MEMEN (ensemble) <i>Eigen Technology & Zhejiang University</i> https://arxiv.org/abs/1707.09098 (https://arxiv.org/abs/1707.09098) | 75.370 | 82.658 |
| 38 Nov 17, 2017 | two-attention-self-attention (ensemble) <i>guotong1988</i> | 75.223 | 82.716 |
| 38 Jul 10, 2017 | DCN+ (single model) <i>Salesforce Research</i> https://arxiv.org/abs/1711.00106 (https://arxiv.org/abs/1711.00106) | 74.866 | 82.806 |
| 38 Mar 09, 2017 | ReasoNet (ensemble) <i>MSR Redmond</i> https://arxiv.org/abs/1609.05284 (https://arxiv.org/abs/1609.05284) | 75.034 | 82.552 |
| 38 Oct 31, 2017 | SLQA (single model) <i>Alibaba iDST NLP</i> | 74.489 | 82.815 |
| 38 Feb 06, 2018 | Jenga (single model) <i>Facebook AI Research</i> | 74.373 | 82.845 |
| 38 Jan 02, 2018 | Conductor-net (single model) <i>CMU</i> https://arxiv.org/abs/1710.10504 (https://arxiv.org/abs/1710.10504) | 74.405 | 82.742 |
| 38 Aug 14, 2018 | eeAttNet (single model) <i>BBD NLP Team</i> https://www.bbdservice.com (https://www.bbdservice.com) | 74.604 | 82.501 |
| 39 Feb 13, 2018 | SSR-BiDAF <i>ensemble model</i> | 74.541 | 82.477 |
| 40 Jul 14, 2017 | Mnemonic Reader (ensemble) <i>NUDT and Fudan University</i> https://arxiv.org/abs/1705.02798 (https://arxiv.org/abs/1705.02798) | 74.268 | 82.371 |
| 41 Dec 23, 2017 | S ³ -Net (ensemble) <i>Kangwon National University in South Korea</i> | 74.121 | 82.342 |
| 42 Jul 29, 2017 | SEDT (ensemble model) <i>CMU</i> https://arxiv.org/abs/1703.00572 (https://arxiv.org/abs/1703.00572) | 74.090 | 81.761 |

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|--------------------|---|--------|--------|
| 43 Jul 06, 2017 | SSAE (ensemble) <i>Tsinghua University</i> | 74.080 | 81.665 |
| 43 Jul 25, 2017 | Interactive AoA Reader (single model) <i>Joint Laboratory of HIT and iFLYTEK Research</i> | 73.639 | 81.931 |
| 43 Feb 22, 2017 | BiDAF (ensemble) <i>Allen Institute for AI & University of Washington</i> https://arxiv.org/abs/1611.01603 (https://arxiv.org/abs/1611.01603) | 73.744 | 81.525 |
| 43 Apr 22, 2017 | SEDT+BiDAF (ensemble) <i>CMU</i> https://arxiv.org/abs/1703.00572 (https://arxiv.org/abs/1703.00572) | 73.723 | 81.530 |
| 43 Nov 06, 2017 | Conductor-net (single) <i>CMU</i> https://arxiv.org/abs/1710.10504 (https://arxiv.org/abs/1710.10504) | 73.240 | 81.933 |
| 43 Dec 14, 2017 | Jenga (single model) <i>Facebook AI Research</i> | 73.303 | 81.754 |
| 43 Jan 24, 2017 | Multi-Perspective Matching (ensemble) <i>IBM Research</i> https://arxiv.org/abs/1612.04211 (https://arxiv.org/abs/1612.04211) | 73.765 | 81.257 |
| 43 May 01, 2017 | jNet (ensemble) <i>USTC & National Research Council Canada & York University</i> https://arxiv.org/abs/1703.04617 (https://arxiv.org/abs/1703.04617) | 73.010 | 81.517 |
| 44 Oct 22, 2017 | Conductor-net (single) <i>CMU</i> | 72.590 | 81.415 |
| 44 Apr 12, 2017 | T-gating (ensemble) <i>Peking University</i> | 72.758 | 81.001 |
| 44 Nov 16, 2017 | two-attention-self-attention (single model) <i>guotong1988</i> | 72.600 | 81.011 |
| 44 Sep 20, 2017 | BiDAF + Self Attention (single model) <i>Allen Institute for Artificial Intelligence</i> https://arxiv.org/abs/1710.10723 (https://arxiv.org/abs/1710.10723) | 72.139 | 81.048 |
| 44 Mar 03, 2018 | AVIQA (single model) <i>aviqa team</i> | 72.485 | 80.550 |
| 44 Dec 15, 2017 | S^3-Net (single model) <i>Kangwon National University in South Korea</i> | 71.908 | 81.023 |
| 45 Nov 06, 2017 | attention+self-attention (single model) <i>guotong1988</i> | 71.698 | 80.462 |

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|--------------------|---|--------|--------|
| 46 Nov 02, 2016 | Dynamic Coattention Networks (ensemble) <i>Salesforce Research</i> https://arxiv.org/abs/1611.01604 (https://arxiv.org/abs/1611.01604) | 71.625 | 80.383 |
| 46 Apr 13, 2017 | QFASE <i>NUS</i> | 71.898 | 79.989 |
| 46 Jul 14, 2017 | smarnet (single model) <i>Eigen Technology & Zhejiang University</i> https://arxiv.org/abs/1710.02772 (https://arxiv.org/abs/1710.02772) | 71.415 | 80.160 |
| 47 Jul 14, 2017 | Mnemonic Reader (single model) <i>NUDT and Fudan University</i> https://arxiv.org/abs/1705.02798 (https://arxiv.org/abs/1705.02798) | 70.995 | 80.146 |
| 47 May 23, 2018 | AttReader (single) <i>College of Computer & Information Science, SouthWest University, Chongqing, China</i> | 71.373 | 79.725 |
| 47 Apr 22, 2018 | MAMCN (single model) <i>Samsung Research</i> | 70.985 | 79.939 |
| 47 Oct 27, 2017 | M-NET (single) <i>UFL</i> | 71.016 | 79.835 |
| 48 Mar 24, 2017 | jNet (single model) <i>USTC & National Research Council Canada & York University</i> https://arxiv.org/abs/1703.04617 (https://arxiv.org/abs/1703.04617) | 70.607 | 79.821 |
| 48 Apr 02, 2017 | Ruminating Reader (single model) <i>New York University</i> https://arxiv.org/abs/1704.07415 (https://arxiv.org/abs/1704.07415) | 70.639 | 79.456 |
| 48 Mar 14, 2017 | Document Reader (single model) <i>Facebook AI Research</i> https://arxiv.org/abs/1704.00051 (https://arxiv.org/abs/1704.00051) | 70.733 | 79.353 |
| 48 Mar 08, 2017 | ReasoNet (single model) <i>MSR Redmond</i> https://arxiv.org/abs/1609.05284 (https://arxiv.org/abs/1609.05284) | 70.555 | 79.364 |
| 48 Dec 29, 2016 | FastQAExt <i>German Research Center for Artificial Intelligence</i> https://arxiv.org/abs/1703.04816 (https://arxiv.org/abs/1703.04816) | 70.849 | 78.857 |
| 48 May 13, 2017 | RaSoR (single model) <i>Google NY, Tel-Aviv University</i> https://arxiv.org/abs/1611.01436 (https://arxiv.org/abs/1611.01436) | 70.849 | 78.741 |

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|--------------------|---|--------|--------|
| 48 Apr 14, 2017 | Multi-Perspective Matching (single model) <i>IBM Research</i> https://arxiv.org/abs/1612.04211 (https://arxiv.org/abs/1612.04211) | 70.387 | 78.784 |
| 49 Aug 30, 2017 | SimpleBaseline (single model) <i>Technical University of Vienna</i> | 69.600 | 78.236 |
| 49 Feb 06, 2018 | SSR-BiDAF <i>single model</i> | 69.443 | 78.358 |
| 50 Apr 12, 2017 | SEDT+BiDAF (single model) <i>CMU</i> https://arxiv.org/abs/1703.00572 (https://arxiv.org/abs/1703.00572) | 68.478 | 77.971 |
| 51 Jun 25, 2017 | PQMN (single model) <i>KAIST & AIBrain & Crosscert</i> | 68.331 | 77.783 |
| 52 Apr 12, 2017 | T-gating (single model) <i>Peking University</i> | 68.132 | 77.569 |
| 52 Jul 29, 2017 | SEDT (single model) <i>CMU</i> https://arxiv.org/abs/1703.00572 (https://arxiv.org/abs/1703.00572) | 68.163 | 77.527 |
| 52 Dec 29, 2016 | FastQA <i>German Research Center for Artificial Intelligence</i> https://arxiv.org/abs/1703.04816 (https://arxiv.org/abs/1703.04816) | 68.436 | 77.070 |
| 52 Jan 22, 2018 | FABIR <i>Single Model</i> https://arxiv.org/abs/1810.09580 (https://arxiv.org/abs/1810.09580) | 67.744 | 77.605 |
| 52 Nov 28, 2016 | BiDAF (single model) <i>Allen Institute for AI & University of Washington</i> https://arxiv.org/abs/1611.01603 (https://arxiv.org/abs/1611.01603) | 67.974 | 77.323 |
| 53 Oct 26, 2016 | Match-LSTM with Ans-Ptr (Boundary) (ensemble) <i>Singapore Management University</i> https://arxiv.org/abs/1608.07905 (https://arxiv.org/abs/1608.07905) | 67.901 | 77.022 |
| 53 Sep 19, 2017 | AllenNLP BiDAF (single model) <i>Allen Institute for AI</i> http://allennlp.org/ (http://allennlp.org/) | 67.618 | 77.151 |
| 54 Feb 05, 2017 | Iterative Co-attention Network <i>Fudan University</i> | 67.502 | 76.786 |
| 55 Jan 03, 2018 | newtest <i>single model</i> | 66.527 | 75.787 |

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|--------------------|---|--------|--------|
| 55 Nov 02, 2016 | Dynamic Coattention Networks (single model) <i>Salesforce Research</i> https://arxiv.org/abs/1611.01604 (https://arxiv.org/abs/1611.01604) | 66.233 | 75.896 |
| 56 Oct 26, 2016 | Match-LSTM with Bi-Ans-Ptr (Boundary) <i>Singapore Management University</i> https://arxiv.org/abs/1608.07905 (https://arxiv.org/abs/1608.07905) | 64.744 | 73.743 |
| 57 Sep 21, 2017 | OTF dict+spelling (single) <i>University of Montreal</i> https://arxiv.org/abs/1706.00286 (https://arxiv.org/abs/1706.00286) | 64.083 | 73.056 |
| 57 Feb 19, 2017 | Attentive CNN context with LSTM <i>NLPR, CASIA</i> | 63.306 | 73.463 |
| 58 Nov 02, 2016 | Fine-Grained Gating <i>Carnegie Mellon University</i> https://arxiv.org/abs/1611.01724 (https://arxiv.org/abs/1611.01724) | 62.446 | 73.327 |
| 58 Sep 21, 2017 | OTF spelling (single) <i>University of Montreal</i> https://arxiv.org/abs/1706.00286 (https://arxiv.org/abs/1706.00286) | 62.897 | 72.016 |
| 59 Sep 21, 2017 | OTF spelling+lemma (single) <i>University of Montreal</i> https://arxiv.org/abs/1706.00286 (https://arxiv.org/abs/1706.00286) | 62.604 | 71.968 |
| 60 Sep 28, 2016 | Dynamic Chunk Reader <i>IBM</i> https://arxiv.org/abs/1610.09996 (https://arxiv.org/abs/1610.09996) | 62.499 | 70.956 |
| 60 Nov 15, 2019 | RQA+IDR (single model) <i>BUAA & MSRA</i> https://arxiv.org/abs/2005.02925 (https://arxiv.org/abs/2005.02925) | 61.145 | 71.389 |
| 61 Aug 27, 2016 | Match-LSTM with Ans-Ptr (Boundary) <i>Singapore Management University</i> https://arxiv.org/abs/1608.07905 (https://arxiv.org/abs/1608.07905) | 60.474 | 70.695 |
| 62 Aug 27, 2016 | Match-LSTM with Ans-Ptr (Sentence) <i>Singapore Management University</i> https://arxiv.org/abs/1608.07905 (https://arxiv.org/abs/1608.07905) | 54.505 | 67.748 |
| 62 Nov 15, 2019 | RQA (single model) <i>BUAA & MSRA</i> https://arxiv.org/abs/2005.02925 (https://arxiv.org/abs/2005.02925) | 55.827 | 65.467 |

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Aug 22, 2019

UQA (single model)
Anonymous

53.698 64.036