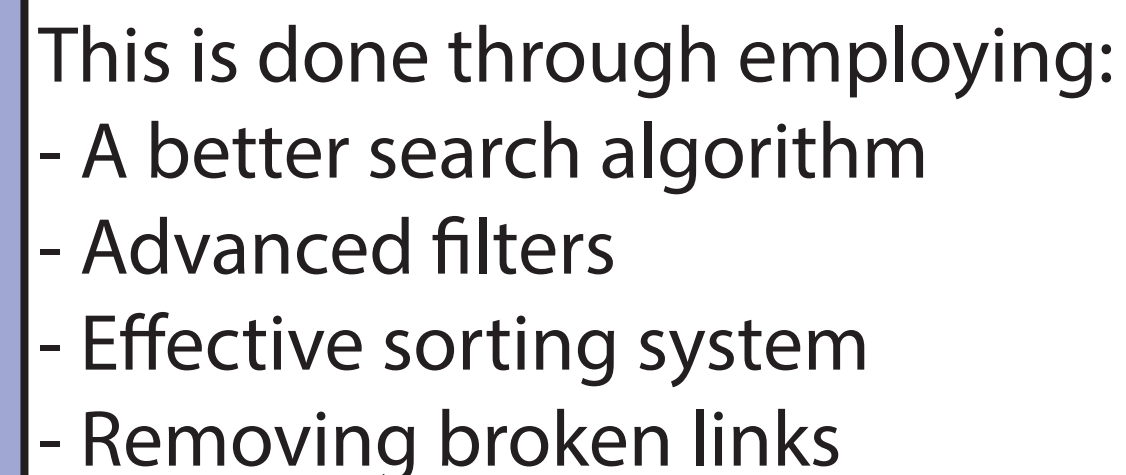




# Advanced Scholarly Search Engine.

## Get research done faster!

Conducting research for university papers can be time consuming for students. This advanced scholarly search engine aims to hasten the research time by mitigating the flaws of currently existing scholarly search engines - such as Google Scholar.



```
function cusall(nodeMatrix, linkProb, tolerance, callback, debug) {
  this.outgoingNodes = nodeMatrix
  this.linkProb = linkProb
  this.tolerance = tolerance
  this.callback = callback
  this.pageCount = this.outgoingNodes.length
  this.probabilityNodes = []
  this.incomingNodes = []
  this.debug=debug

  this.startRanking()
}
```

```
cusAlg.prototype.reportDebug = function (count) {
  console.log("Pages: " + this.outgoingNodes.length);
  console.log(this.incomingNodes);
  console.log("_____ITERATION "+count+"_____");
  console.log(this.probabilityNodes);
}
```

```

    cusAlg.prototype.iterate = function (count) {

        var result = []
        for (b in this.probabilityNodes) {
            var sum = 0
            for (var a=0; a<this.incomingNodes[b].length; a++) {
                prob = this.probabilityNodes[this.incomingNodes[b][a]]
                ct = this.outgoingNodes[this.incomingNodes[b][a]].length
                sum += (prob/ct)
            }
            var res = this.coff+this.linkProb*sum
                , max = this.probabilityNodes[b]+this.tolerance
                , min = this.probabilityNodes[b]-this.tolerance
            if (min <= res <= max) result.push(res)
            this.probabilityNodes[b]=res
        }
        if (result.length == this.pageCount)
            return this.callback(null, result)
        if (this.debug) this.reportDebug(count)

        this.iterate(++count)
    }
}

```

| Response | Percentage |
|----------|------------|
| Yes      | 100%       |

- Saves research time
- No inaccessible results
- Most relevant results appear first

The currently existing scholarly search engines have a number of existing issues.

- Results are sorted by total citations. Meaning they are not always relevant
- Broken links
- Paywalls
- Small archive
- Lack of an advanced search