

|                                 |                        |   | Harry       |
|---------------------------------|------------------------|---|-------------|
| <b>BOTTOM<br/>MARK<br/>BAND</b> | <b>Algorithms</b>      | Simple mathematical calculations                                | Not Sure    |
|                                 |                        | Linear search   | Not Used    |
|                                 | <b>Databases</b>       | Non-SQL table access  | Not Used    |
|                                 |                        | Simple data structures  | Not Sure    |
| <b>MIDDLE<br/>MARK<br/>BAND</b> | <b>Algorithms</b>      | Simple scientific/mathematical /robotics/control/business model | Not Sure    |
|                                 |                        | Bubble Sort   | Not Used    |
|                                 |                        | Binary search   | Not Used    |
|                                 |                        | Simple user defined algorithms                                  | Not Sure    |
|                                 | <b>Databases</b>       | Single table database   | Should Have |
|                                 |                        | Simple data model in database                                   | Not Sure    |
|                                 |                        | Writing and reading from files                                  | Must Have   |
|                                 | <b>File Access</b>     | Text files  | Not Used    |
|                                 |                        | File(s) organised for sequential access                         | Could Have  |
|                                 | <b>Web Stuff</b>       | Calling Web service APIs  | Must Have   |
|                                 |                        | Simple client-server model                                      | Must Have   |
|                                 | <b>Data Structures</b> | Multi-dimensional arrays  | Not Sure    |
|                                 |                        | Dictionaries  | Not Sure    |
|                                 |                        | Records   | Not Sure    |
|                                 |                        | Simple OOP model  | Not Sure    |
| <b>TOP<br/>MARK<br/>BAND</b>    | <b>Algorithms</b>      | Complex scientific/mathematical/robotics/control/business model | Not Sure    |
|                                 |                        | Hashing   | Not Used    |
|                                 |                        | Merge sort  | Not Used    |
|                                 |                        | Advanced matrix operations                                      | Not Used    |
|                                 |                        | Recursive algorithms  | Not Sure    |
|                                 |                        | Graph/Tree Traversal  | Not Used    |
|                                 |                        | Complex user defined algorithms                                 | Not Sure    |
|                                 | <b>Databases</b>       | Complex data model in database                                  | Not Sure    |
|                                 | <b>File Access</b>     | Files(s) organised for direct access                            | Must Have   |
|                                 | <b>Web Stuff</b>       | Server-side scripting using request and response objects        | Must Have   |
|                                 |                        | Complex client-server model                                     | Must Have   |
|                                 | <b>Data Structures</b> | Hash tables   | Not Sure    |
|                                 |                        | Lists   | Not Sure    |
|                                 |                        | Stacks  | Not Sure    |
|                                 |                        | Queues  | Not Sure    |
|                                 |                        | Graphs  | Not Sure    |
|                                 |                        | Trees   | Not Sure    |
|                                 |                        | Complex OOP model   | Not Sure    |
|                                 |                        | Linked lists  | Not Sure    |