* MVU Module/Slide Notes
  + "Support Vector Machines for Dummies": <http://blog.aylien.com/support-vector-machines-for-dummies-a-simple/>
  + "Support Vector Machine": [https://en.wikipedia.org/wiki/Support\_vector\_machine#History Links to an external site.](https://en.wikipedia.org/wiki/Support_vector_machine#History)
* Intro to Statistical Learning with R (ISLA)
  + Chapters 9, pages 337-353
    - Support Vector Machine (used for classification)
    - Great “out of the box” classifier
    - Maximal Margin Classifier
      * Hyperplanes have 1 less dimension than the space they occupy and divide the space in 2.
      * A theoretically infinite number of hyperplanes can divide the space. We aim to pick the one who’s perpendicular distance to our training points is the largest. (“maximal margin hyperplane” or optimal separating hyperplane”)
      * Support vector is the name of the perpendicular vectors from the hyperplane to the ~3 closest training points.
        + Hyperplane really only depends on these few points, all other points could move without affecting the hyperplane.
      * Many cases are not perfectly separable and therefore “soft” margins must be applied