Koseleff and Pecker proved that every knot can be described by a curve parametrized by Chebyshev polynomials. I use these curves to introduce a model for random knot diagrams developed with Krishnan. I relate the number of crossings of these diagrams to the crossing numbers of the knots with Even-Zohar. Using these results, I study various aspects of the Alexander polynomials of random 2-bridge knots, with applications to genus and detecting fiberedness. (Received September 17, 2015)