Abdullah N. Arslan
Assistant Professor of Computer Science

Education
Ph.D. Computer Science, University of California, 2002
M.S. Computer Science, University of North Texas, 1996
B.S. Computer Engineering, METU, Turkey, 1990

Research
Algorithms on Strings, Computational Biology

Courses
Analysis of Algorithms
Theory of Computation
Operating Systems

Arslan grew up in a small city in Turkey.

Math and physics courses for him were as much fun as seeing Jurassic Park 1 the first time.

He was no older than 10 when he developed an algorithm to find the square root of any given integer up to any desired decimal position. He did this just because he needed such calculations in his assignments, and there were no electronic calculators (not for him anyway). Then he needed to wait for more than a decade to learn about computers and algorithms.

His biggest dream when he was a teenager was to become a famous soccer player. He became famous maybe locally but his life took a different path when he became a student in a prestigious university in Turkey. After that his life started to become more of a dining philosopher than a sportsman.

Arslan started working for industry when he was a junior in the university. He and one of his classmates developed an authoring tool for a company. After his graduation he worked for the Turkish central bank where he participated in development and maintenance of several in-house software projects.

After spending more than three years in this bank, he made up his mind on pursuing a career in academia. He became a student again. He had always been interested in problem solving before, therefore it was very natural that analysis of algorithms and theory of computation became his main areas of interest during his graduate study. He was fascinated with the problems that arose in computational biology. He developed algorithms for normalized local sequence alignment in his PhD thesis.

Dr. Arslan has developed numerous algorithms for sequence alignment problems. He has also published results on various pattern matching and similarity searching problems, and he introduced new definitions of similarity for linear and multi-dimensional strings.

Selected Publications

- A largest common d-dimensional subsequence of two d-dimensional strings. (2007). *LNCS 4639*, pp. 40-51.
- Regular expression constrained sequence alignment. *(in press*). *Journal of Discrete Algorithms.*
- (with Omer Egecioglu and Pavel A. Pevzner) A new approach to sequence alignment. (2001). *Bioinformatics*, Volume 17, Issue 4, pp. 327-337.