

# *My Life*

*A Memoir*  
*by*  
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\* Chapters and Appendices dealing with Technology



## PREFACE

This is the story of my life written for my children although, I hope, others may also find it interesting. I was born in Greece in 1934 from parents who had been born in Asia Minor (Turkey) and found themselves in Greece as a result of the Greek/Turkish war of 1919-1922 and the infamous "population exchange" of 1924. I grew up listening to stories of the lost fatherlands and the suffering of the people who had been expelled from them.

The land of my parents and its traditions influenced my own development. They had the culture of a religious minority with emphasis on learning and acquiring skills. In retrospect, that might explain why, when I came to the United States, most of my social interactions were with Jews and in 1966 I married a Jewish woman, Marion Mehrman. Because neither of us cared about the outward trappings of religion, we had a lot in common: both the good and the bad features of religious minority cultures. I converted to Judaism in 2001 but that was more of a confirmation of what I practiced rather than a change.

When I was a young child, in the dark days of the War World II, I was reading a geography book and I was fascinated by the description of New York City. It seemed to me that it was the best place to be. I was fortunate to reach it and even though I have never lived in the city itself, I have spent the last 47 years of my life living in places within 50 miles from it. New York City is where I met Marion and it is where we have been going for everything important: symphonies in the Lincoln Center, shows on Broadway, museums, or, as we have grown older, the medical facilities of the city. In a certain way, being near New York City encapsulates my success in life in the same way that the birthplace of my parents encapsulates the obstacles I had to overcome.

A big obstacle in writing this memoir is that I have never kept diaries. So what I write is almost entirely from memory. I have found some help from notes scribed in the back of photographs, professional files, and for the last fifteen years in my appointment books.

My first interest was history and later biology but eventually I opted for engineering for pragmatic reasons. In most of the world engineering is the usual pathway to middle class for ambitious and hard working people whose families have limited means and this was certainly the case with me. When I found the opportunity I worked a lot with biologists before settling into a specialty that deals with replicating human visual perception by computers. It is commonly called Machine Vision and it falls in the general area of Artificial Intelligence.

Work has been a very big part of my life and a lot of my memoir is devoted to it. I have tried to avoid mixing discussions of technology with my personal life as much as I could. I have kept most of the technical material in three separate chapters (7, 11, and 13) but some of it seeps into other chapters as well. I mark these three chapters as well as sections that include significant technical material with a star \*. (Of course, all sections in starred chapters are assumed to be starred.) Entries in brackets of the form [year:number] refer to the

publications list of Appendix A. Entries in brackets with a single number refer to sources listed at the end of the respective section.

Another challenge I faced was whether to describe events in chronological or thematic order. For the most part I have adhered to a chronological order but there are exceptions. The chapters on Machine Vision (13), Symbol Technologies (14), and Memorable Trips (15) are thematic.

For a long time history stayed as my hobby but in the last few years I have been able to devote more time to it and I have been teaching a course on Middle East History at the Osher Lifelong Learning Institute (OLLI) at Stony Brook. OLLI has also been helpful in writing this memoir and I want to thank the Memoir Writing Workshop leaders Sheila Bieber and Dorothy Schiff Shannon and the other participants of the workshop for their input and encouragement.

I am grateful to Professor Heath Lowry (Princeton) for reading a draft of the section on the history of my parents land and providing me with his comments.

Whenever I refer to people or their organization in more than a casual way I have asked the people in question to check the accuracy of my story. I am grateful (in alphabetic order) to Rabbi Adam Fisher, Herb Freeman, Eric Grimson, Eugene Joseph, Brian Kernighan, David Lee, Doug McIlroy, Vic Nalwa, Steve Skiena, Ken Steiglitz, Murali Subbarao, Jeff Ullman, and Ynjiun Wang for taking the time to do so and, in several cases, providing additional information.

Theo Pavlidis  
Setauket, NY, March-July 2012

**A Note on Illustrations:** I have divided the illustrations into two parts: *Illustrations of the Narrative* (15 pages) and *Photographs of People and Places* (18 pages). The former contains only figures that are cited explicitly in the narrative. If you are reading this book on the web you may not wish to download the six megabytes of the *People and Places* part.

## **ABBREVIATIONS**

**ACM – Association for Computing Machinery.** A worldwide organization of Computer Scientists with about 100,000 members founded in 1947.

**IAPR – International Association for Pattern Recognition.** An association of national societies in the field of Pattern Recognition founded in 1975.

**IEEE – Institute of Electrical and Electronic Engineers.** A worldwide organization of over 400,000 engineers, including Computer Scientists. It was formed in 1963 by the merger of two earlier societies AIEE founded in 1884 and IRE founded in 1912.

**NSF – National Science Foundation.** It is the main American funding agency for University Research.

**PAMI – Pattern Analysis and Machine Intelligence.** The term was coined by Professor King-sun Fu to cover activities in Pattern Recognition, Image Analysis, and Artificial Intelligence. It is used in the title of the major publication in the field.

