
Kimberly Teer Cornett

Objective

Design and build medical diagnostic imaging systems with dynamic international teams; leading to or incorporating a managerial role in biomedical imaging. Allowing for placement as a consultant between engineering development and medical applications.

Education

Ph.D. Candidate, University of California, Davis

Davis, CA, Dec. 2000–Present

Department of Electrical and Computer Engineering

“Miniature Variable Optical Delay Lines Using Silicon Micromachined Resonant-Scanning Mirrors for applications including Optical Coherence Tomography and Fourier Transform Infrared Spectroscopy”

Major: Optical Microelectromechanical Systems (Optical MEMS)

Minor: Mechanical Engineering

Recipient of Graduate Assistance in Areas of National Need (GAANN) Fellowship (2001–2002)

Graduate Program Research Committee Student Representative (1998–2002)

M.S., University of California, Davis

Davis, CA, Sept. 1996–Dec. 2000

Major: Electrical Engineering

GPA: 3.67/4.00

B.S., Harvey Mudd College

Claremont, CA, Sept. 1991–May 1995

Major: General Engineering

dual Major: Government – Claremont McKenna College

GPA: 3.09/4.00

Honors in Engineering (awarded at graduation) Community Service Award

Varsity Women’s Swim Team (1993–1994) Dean’s List Distinction

Class Vice-President (1993–1994) Student Faculty Committee Member (1993–1995)

Class President (1991–1992) Social Committee Representative (1991–1994)

Experience

University of California, Davis – Research Assistant

Davis, CA, Sept. 1996–Present

Research and development of Optical Microelectromechanical Systems (MEMS)

Presentations/Publications: <http://www.ece.ucdavis.edu/~cornett/research/>

Patent Pending: Co-Inventor, Micromirror Array. UC Case No. 2001-486

Research Advisor: Dr. Olav Solgaard (Asst. Professor, EE Dept., Stanford University)

Research Co-Advisor: Dr. Jonathan P. Heritage (Professor and Chair of ECE Dept., UC Davis)

Research Sponsors: National Science Foundation (NSF)
Institute for Laser Science and Applications (iLSA/LLNL)
Berkeley Sensors and Actuators Center (BSAC/UCB)

Kovac Enterprises Proprietary Limited – Board of Directors

Noosa Heads, QLD, Australia, June 2002–Present

Technical lead, web page designer, and Webmaster: <http://www.kovacenterprises.com.au/>

Founder: Karl B. Kovac, II

Silicon Light Machines – Student Intern

Sunnyvale, CA, June 1998–Sept. 1998

Developed and performed tests to quantify the ability of the Grating Light Valve (GLV) to withstand the application of extremely high optical power densities. Reliability work continues to determine the absolute maximum power density.

Supervisor: Chris Gudeman

Thomas J. Watson, Jr. Fellowship – Watson Fellow*Aug. 1995–Aug. 1996***“The Engineering Aspects of Winemaking in Europe and Irrigational Techniques in Israel.”**

- **Forschungsanstalt Geisenheim (State Research Institute)** *Geisenheim, Germany, Aug. 1995–Nov. 1995*
Harvesting techniques in Germany: <http://www.forschungsanstalt-geisenheim.de/>
Research Summary:
“Using Sensory Abilities to Analyze Grape Maturity Prior to Harvest Using Conventional Methods”
Referent: Professor Dr. Monika Christmann (Head of the Department of Enology)
- **Wein-Und Sektkellerei Kössler (Koessler Winery)** *Appiano (San Paolo), Italy, Nov. 1995–Feb. 1996*
Hands-on training in the techniques of bottling and racking, and in the workings of a Northern Italian winery
Supervisor: Herr Hans Ebner (Winery Owner) <http://www.koessler.it/>
- **Comité interprofessionnel du vin de Champagne (CIVC)** *Epernay, France, Feb. 1996–May 1996*
Physical monitoring of the well being of the Champagne regions’ weather stations
Computer simulation and data analysis of meteorological effects on the vineyards in the Champagne region
Research Summary:
 - 1) “Comparison Between A.V.C. Questionnaire Data and Blue Sky Predictions for 1994 and 1995 – Chardonnay, April 16, 1996”
Blue Sky (March 1996) Bud Burst (Débourrement) Flowering (Floraison) and Veraison (Véraison)
 - 2) “Comparison Between A.V.C. Questionnaire Data and Blue Sky Predictions for 1994 and 1995 – Pinot Noir, May 7, 1996”
Blue Sky (April 1996) Bud Burst (Débourrement) Flowering (Floraison) and Veraison (Véraison)Supervisor: Laurent Panigai (Head of the Department of Viticulture) <http://www.champagne.fr/>
- **Golan Heights Winery – Kibbutz Ortal** *Golan Heights (Katzrin), Israel, May 1996–Aug. 1996*
Utilization of different irrigational systems to control vine vigor, canopy development, and the rate of ripening
Host: Kibbutz Ortal
Supervisor: Victor Schoenfeld (Head Winemaker) <http://www.golanwines.co.il/>

Accenture (formerly Andersen Consulting) – Intern Analyst*Los Angeles, CA, June 1994–Sept. 1994*

Server to mainframe interactions for new automated shipment tracking system

BAX Global (formerly Burlington Air Express) – Irvine, CA

Engineering Clinic – Harvey Mudd College

- **Amgen, Inc.** *Thousand Oaks, CA, Sept. 1994–June 1995*
Determined the feasibility of using neural network technology in conjunction with Amgen’s on-line optical density probe. The neural network combines the probe readings with other process variables to produce a measurement of optical density that is consistent over a large range of fermentation conditions.
- **Loral Space System** *Palo Alto, CA, Sept. 1993–June 1994*
Designed and performed tests on a database, graphical user interface, and an on-line help. The database is to be used at Loral in Palo Alto, CA to trace and monitor their Integrated Space Test Complex (ISTC) Components.

Skills (First Used)

Engineering Measurement Devices–Oscilloscope, PMT, Optical Spectrum Analyzer, Lock-In Amplifier, etc. (1992), Wood & Metal Machinist (1992), L-edit (1996), Matlab (1992), Unix, Linux, DOS (1989), Microsoft Office (1989)

Interests

Viticulture, wine tasting, and irrigational techniques; Burningman participant (since 1998).

Foreign languages (formerly conversational): Spanish, German, Italian, French, and Hebrew.