

Curriculum Vitae

Chun-Hung Peter Chen

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EDUCATION

M.B.A. in Leavey School of Business, Santa Clara University, Santa Clara, California, 2017

Ph.D. in Transportation Engineering, University of Maryland, College Park, 2004

M.S.C.E. in Transportation Engineering, National Taiwan University, Taiwan, 1995

B.S.C.E., National Taiwan University, Taiwan, 1993

MEMBERS

- Committee Member, Paper Review Coordinator, Session Presiding Officer, Bus Transit System Committee, AP050, Transportation Research Board of the National Academies
- Paper Reviewer for Transportation Research- Part A, Journal of Advanced Transportation, Journal of Industrial Engineering & Management Systems, International Journal of Sustainable Transportation
- Certified Research Associate & Independent Reviewer, Mineta Transportation Institute, San Jose State University
- Member, Institute of Transportation Engineers (ITE), Review Panel of ITE Trip Generation Handbook, ITS Transit Project Reviewer
- Immediate Past President, International Chinese Transportation Professional Association, ICTPA, Northern California Chapter, Presidency Term 2015-2016

REGISTRATIONS

- Registered Professional Civil Engineer (Washington 41354, California 71756)
- Professional Traffic Operation Engineer (PTOE, Transportation Professional Certification Board, ITE, 1604)

EXPERIENCE

Senior Transportation Planner, Santa Clara Valley Transportation Authority, San Jose, California **02/2007 – Present**

- Coordinate consultants and other public agencies to deliver products to customers;
- Manage VTA transit and highway projects, including BART extension, Light Rail, Bus Rapid Transit, Local Bus, HOT-Lane, Express-Lane, Auxiliary Lanes projects, various traffic studies and EIRs;
- Lead VTA Activity-Based Travel Demand Forecasting Model project: Java/Cube/Python based model, use MS SQL server & Visual Studio/VB to process big data with ABM – ABM simulates every person/household trip behavior for 26 million daily trips in Bay area;
- Manage Geographic Information System (GIS) application with Python & Travel Demand Model, land use and scenario development through data visualization;

- Review General Plans from all the jurisdictions of Santa Clara County and integrate those data into countywide land use data;
- Develop highway traffic and transit data for El Camino and Stevens Creek Bus Rapid Transit Projects & San Mateo CCAG Model, SamTrans BRT, and Alameda County Model Development;
- Develop frameworks for forecasting and evaluating the emissions impacts of transit oriented development strategies, provide information for traffic studies and EIRs

Transportation Engineer, David Evans and Associates, Inc., Bellevue, WA/San Ramon, California **10/2005 – 02/2007**

- Prepared traffic operation and impact studies, accident analysis, signal timing using HCS, SYNCHRO, AutoCad, GIS, aaSIDRA, Rodel, VISSIM, VISUM, etc.

Traffic Engineer, The Traffic Group, Inc., Baltimore, Maryland **01/2005 – 10/2005**

- Prepared traffic impact studies, accident studies, parking analysis, signal timing and roadway design studies using HCS, SYNCRO, Simtraffic, AutoCad, Microstation, MS Office, GIS, Critical Lane Analysis, and aaSIDRA

Research Assistant, University of Maryland, College Park, Maryland **10/2002 – 07/2004**

- Worked on “Integrated Management of Highway Maintenance and Traffic” for the Maryland State Highway Administration;
- Identified and proposed feasible alternatives of work zone activities by various traffic control strategies and traffic control devices

Intern, Office of Traffic and Safety, Maryland State Highway Administration, Baltimore, Maryland **09/2001 – 10/2002**

- Analyzed Maryland accident data and preparing Maryland Traffic Safety Reports;
- Recommended the integration of specific accident information data, including persons, vehicles, alcohol related, and 5W (When, Where, Who, How, and Why) and 3E (environment, engineering, and enforcement)

Research Assistant, University of Maryland, College Park, Maryland **08/1999 – 09/2001**

- Developed Maryland highway safety models based on Maryland accident data, and identifying and comparing different intersection simulation software in intersection capacity and delay model, including SYNCHRO, CORSIM, and VISSIM, etc.;
- Conducted on Airport and Airspace Simulation Model with SIMMOD, Airport Noise Analysis with the Integrated Noise Model, Airport Delays Estimation with Analytic and Simulation Models

Traffic Analyst, THI Consultants Inc., Taipei, Taiwan **11/1998 – 07/1999**

- Conducted projects on traffic safety and urban renewal; recommended solutions to improve school traffic safety; developed neighborhood traffic mitigation plan; proposed traffic calming devices to protect neighborhoods from traffic;
- Participated projects on heliport development in Taiwan: forecast helicopter passenger demand for commercial and non-commercial and decision for heliport site location

Field Civil Engineer, Continental Engineering Corporation, Taipei, Taiwan 08/1997 – 08/1998

- Supervised field crew and arranged work schedules for highway construction and management; negotiated contract terms with client; prepared final project documentation; adjusted PERT charts monthly according to actual project progress; prepared soil tests standardized by American Society for Testing and Materials (ASTM) before constructing asphalt concrete pavement to satisfy client's specifications

Infantry Platoon Leader, R.O.C. Army, Taiwan 07/1995 – 06/1997

- Supervised infantry soldiers for military training;
- Coordinate the Multi-Services and Arms Cooperation and Joint Campaign training

VOLUNTEER EXPERIENCE

- Category Judge, Synopsys Silicon Valley Science and Technology Championship, San Jose, March 2011- present
- Grand Awards Judge for Energy and Transportation, Intel International Science and Engineering Fair, San Jose, May 2010

HONORS AND AWARDS

- Merit-Based Scholarship, Leavey School of Business, Santa Clara University, 2013-2017
- Research Assistantship, University of Maryland, College Park, 1999-2004
- Otter Award, Maryland State Highway Administration, June 2002
- Outstanding performance during my intern at Maryland SHA and was given from Maryland SHA Administrator
- Presidential Awards, National Taiwan University, Taipei, Taiwan, 1991, 1992
- Presidential Award is given each semester to students ranking within the top 5% of their class

PUBLICATIONS & PRESENTATIONS

Chen, C. H., “An Application of Activity-Based Model in Public Transportation”, 98th TRB Annual Meeting, Transportation Research Board, Washington D.C., January 2019.

Chen, C. H., “Capturing Census and Zillow Data Using Python API to Predict Housing Price”, ICTPA TRB Workshop, Washington D.C., January 2016

Chen, C. H., “A Strategic Plan for a Transit Agency in the Age of Self-Driving Car”, ICTPA TRB Workshop, Washington D.C., January 2015, https://prezi.com/ebv8bgxt_ezd/self-driving-car/

Chen, C. H., and Naylor, G., “Management and Integration of Data and Travel Demand Forecasting Modeling at the Santa Clara County Congestion Management Agency”, 94th TRB Annual Meeting, Transportation Research Board, Washington D.C., January 2015.

Chen, C. H., and Naylor, G., “An Analytical Framework for Forecasting and Evaluating the Emissions Impacts of Transit Oriented Development Strategies”, 92nd TRB Annual Meeting, Transportation Research Board, Washington D.C., January 2013.

Chen, C. H., and Naylor, G., “Bus Rapid Transit Development Strategies in Santa Clara County California”, 92nd TRB Annual Meeting, Transportation Research Board, Washington D.C., January 2013.

Chen, C. H., and Naylor, G., “Development of a Mode Choice Model for Bus Rapid Transit in Santa Clara County California”, *Journal of Public Transportation*, Vol.14 No.3, p41-62, October 2011.

Chen, C. H., “Recent VTA Model Enhancements – Integrating Park and Ride Trips into Highway Assignment and Developing Emission Estimate”, Citilabs International User Conference FUTURA 2011, Palm Springs, California, October 2011.

Chen, C. H., and Naylor, G., “Integration of Travel Demand, Land Use and Emissions Modeling for a Transit Corridor Expansion Project in Santa Clara County California”, 90th TRB Annual Meeting, Transportation Research Board, Washington D.C., January 2011.

Chen, C. H., and Naylor, G., “Development of a Mode Choice Model for Bus Rapid Transit in Santa Clara County California”, 89th TRB Annual Meeting, Transportation Research Board, Washington D.C., January 2010.

Luo, S. S., Kao, C. H., and Chen, C. H., “A Study of Digital Tachograph in the Abnormal Driving Behaviors Management of Bus Drivers Using Data Mining Techniques”, 89th TRB Annual Meeting, Transportation Research Board, Washington D.C., January 2010.

Chen, C. H., and Naylor, G., “Development of a Regional Truck Model for the Santa Clara Valley Transportation Authority”, 88th TRB Annual Meeting, Transportation Research Board, Washington D.C., January 2009.

Chen, C. H., and Schonfeld, P., “Pavement Resurfacing Intervals in Work Zone Optimization”, 86th TRB Annual Meeting, Transportation Research Board, Washington D.C., January 2007.

Chen, C. H., and Schonfeld, P., “Work Zone Optimization for Multiple-Lane Highway Resurfacing Projects with Time Constraints and an Alternate Route”, 85th TRB Annual Meeting, Transportation Research Board, Washington D.C., January 2006.

Chen, C. H., Schonfeld, P., and Paracha, J., “Work Zone Optimization for Two-Lane Highway Maintenance Projects with An Alternate Route”, *Transportation Research Record 1911*, p95-105, Transportation Research Board, Washington D.C., December 2005.

Chen, C. H., and Schonfeld, P., “Work Zone Lengths for a Four-Lane Road with an Alternate Route”. Vol.131 No.10, p780-789, *Journal of Transportation Engineering*, ASCE, October 2005.

Chen, C. H., and Schonfeld, P., “Work Zone Optimization for Two-Lane Highway Maintenance Projects”, *Transportation Research Record 1877*, p95-105, Transportation Research Board, Washington D.C., December 2004.

Chen, C. H., “Integrated Management of Highway Maintenance and Traffic” Ph.D. Dissertation, Department of Civil and Environmental Engineering, University of Maryland, College Park, December 2003.

Chen, C. H., “A Study on the Feasibility of Relocating Taipei Airport” Master Thesis, Department of Civil Engineering, National Taiwan University, Taipei, Taiwan, June 1995.