

Edward Locke, MA, Ed.S

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SUMMARY OF QUALIFICATIONS & SERVICE PLANS

Self-motivated, forward-looking, system-thinking, service-oriented and cooperative professional, college instructor and education researcher, with well-integrated cross-disciplinary education, experience and expertise, seeking opportunities to work for colleges, universities or research institutions in the following fields:

Teaching:

- Industrial design and engineering drafting technology: (1) Product design and development, (2) engineering design/drafting (3D modeling and 2D drafting with CADD), (3) descriptive geometry and sheet-metal design, (4) prototype fabrication, (5) sustainability in design practice, and others.
- Multimedia commercial arts and visual communication: (1) Graphic design, (2) illustration, (3) digital photography, (4) desktop publishing and website design, (5) character design, storyboards, and computer animation, (6) video production, and (7) studio and digital arts.
- Education: (1) Education theories and history, (2) curriculum and textbook development, and others.

Education research and leadership:

- College-level curriculum development: (1) Engineering and technology, (2) fine, commercial arts and visual communication, (3) industrial product design, and (4) interdisciplinary.
- K-12 education research and development: (1) STEAM (science, technology, engineering, arts and mathematics) research and curriculum development, and (2) development of multi-media online instructional materials.

ACADEMIC BACKGROUND

(Diplomas & Certificates: <http://suniseaproducts.weebly.com/diplomas--certificates-with-transcripts.html>)

Education

- **California State University, Northridge (CSUN)**, Northridge, California
Undergraduate degree: Bachelor of Arts in Arts 3D - Industrial Design
- **California State University, Los Angeles (CSULA)**, Los Angeles, California
Graduate degree: Master of Arts in Industrial Technical Studies (Engineering and Technology)
- **The University of Georgia (UGA)**, Athens, Georgia
Graduate degree: Education Specialist in Workforce Education (higher than master's and below Ph. D)
- **East Los Angeles College (ELAC)**, East Los Angeles, California
Courses: All lower-division engineering major courses, college chemistry, physics and calculus-level mathematic courses (3 each) leading towards a Bachelor of Science degree in Mechanical Engineering at California State University, Los Angeles.

Training

- **El Camino College (ECC)**, Torrance, California
Credential: Certificate of Competence in Computer Animation
- **East Los Angeles College (ELAC)**, East Los Angeles, California
Degrees and credential: (1) Associate in Arts in Arts Graphic Communication, (2) Associate in Science in Computer-Aided Drafting/Design, and (3) Certificate of Achievement in Digital Imaging

- **Pasadena City College (PCC)**, Pasadena, California
Credential: Certificate of Achievement in Studio Arts

PROFESSIONAL EXPERIENCE

- Teaching engineering technology at college-level: Taught (1) engineering drafting, using computer-aided drafting programs and product design projects, and (2) development of course materials for creative activities for future technology teachers. Developed and published a college-level textbook (<http://suniseaproducts.weebly.com/free-online-descriptive-geometry--sheet-metal-design-textbook.html>) and other instructional materials (<http://suniseaproducts.weebly.com/engineering-course-materials.html>).
- Developing product design instructional materials: Created course materials for senior-year product design and engineering projects (<http://suniseaproducts.weebly.com/product-design--engineering-challenge-projects.html>).
- Practicing and tutoring arts and graphic design: Tutored digital photography and page layout skills as well as cartoon creation techniques. Painted outdoor murals for advertising, designed packaging, logo, signage, brochures and other commercial art works. Published cartoons and graphic design works, online instructional manuals and step-by-step instructions on digital graphics skills, and commercial arts (<http://suniseadesign.weebly.com/research.html>).
- K-12 STEM education research: Published a vision paper on future U.S. K-12 STEM education, which is hosted in the website of the Institute of Education Sciences, the research arm of the United States Department of Education (<https://eric.ed.gov/?id=EJ906150>). Conducted substantial amount of preliminary research, created an independent website (<http://scholarsteamk12plus.weebly.com/>) and published the research outcomes (<http://scholarsteamk12plus.weebly.com/research-outcomes.html>).

ARTS & DESIGN SKILL SETS

- Computer programs:
 1. Product design and engineering drafting/3D modeling: AutoCAD, SolidWorks, Inventor, CATIA and SolidEdge (CADD or computer-aided design/drafting programs).
 2. Arts, graphic design and computer animation: Adobe Creative Suit (Photoshop, Illustrator, Flash, AfterEffects, Premiere, Painter), 3ds MAX, Maya and Bryce.
 3. Visual communication and desktop publishing: Adobe InDesign and Dreamweaver, Weebly.com, and HTML.
- Traditional studio arts:
 1. Painting: Oil, acrylic, watercolor, and gouache.
 2. Drawing: Graphite, charcoal, color pencils, pastels, scratchboard, markers, ink pens and others.
 3. Print-making: Etching, lithograph, linocut, monotype, dry-point, and collography.
 4. Ceramics: Hand-building (pinching and coil construction) and slip casting.
 5. Sculpture: Modeling, carving and casting.
- Production and fabrication:
 1. Hand tools: Saw, chisels, brushes, and others used in sculpture, ceramics and 3D design courses.
 2. Powered equipment: Disk, table and bend saws, router, polisher, belt, drum and disk sanders.

LANGUAGE AND ETHNIC CULTURES

- Think, speak, read and write fluently in both English and Mandarin; speak Taiwanese (a Chinese dialect).
- Worked with Caucasian-, Jewish-, African-, Latino-, and Asian-American communities.

EMPLOYMENT HISTORY

- **The Los Angeles Collegian**, Los Angeles, California. Full 2016 - Spring 2017.
Tutor. Produced graphic arts and cartoons, made page layouts, and tutored skills with Adobe Photoshop and InDesign for the student newspaper staff of Los Angeles City College Journalism Department.
- **East Los Angeles College**, Monterey Park, California, Fall 2011 - Spring 2013.
Engineering Tutor/Grant Writer. Tutored engineering graphics including product design projects, wrote grant and curriculum proposals.
- **East Los Angeles College**, Monterey Park, California, Summer 2011.
Community Service Teacher, Taught engineering activities to middle and high school students in the Escalante Mathematics-Engineering Summer Junior Academy program.
- **Santa Ana College, Santa Ana**, California. Fall 2001 - Spring 2007.
Instructor. Taught engineering graphics/drafting with product design projects.
- **The University of Georgia**, Athens, Georgia, Fall 2007 - Summer 2009.
Graduate Research Assistant (funded by the National Science Foundation). Taught a creative activity course featuring digital arts and hands-on 3D model construction skills. Conducted research on K-12 STEM education.
- **Sunrider International**, Torrance, California. 1998.
Graphic designer. Designed packaging, brochures and labels for a nutritional product manufacturer.
- **The University Improvement Corporation**, Northridge, California. 1996.
Graphic artist. Designed and produced signage, maps, flyers and other art works for the business operations of California State University, Northridge.
- **SuniSea Professional Services**, Los Angeles, California. 1996 - present.
Independent contractor. Provided professional services in product design, graphic design, technical illustration, 3D modeling and 2D drafting with CADD software programs, and in language translation (English and Mandarin).

RECOGNITION & HONORS

- Society of Professional Journalists National Winner of Mark of Excellence Award for Photo Illustration (<https://www.spj.org/news.asp?REF=1511>).
- California College Media Awards Second Place Best Photo Illustration and Fourth Place Best Layout (<http://suniseadesign.weebly.com/mass-media-illustration.html>).
- Pasadena City College Fine and Commercial Arts Scholarship and 65th Annual Scholarship & Awards Exhibition (<http://suniseacreation.weebly.com/my-portfolio.html>), and Osher Scholarship.
- Guisados Featured Artist Program Exhibition (<http://suniseacreation.weebly.com/my-portfolio.html>).
- Honorable Mention, GoldStar International Design Competition (<http://suniseaproducts.weebly.com/multi-functional-food-processor.html>).
- Scholarship Awards (twice) from the Asian-Pacific Association of Los Angeles Community College District.
- Boeing Technology Scholarship from Cerritos College.
- Graduate Equity Fellowship from California State University, Los Angeles.
- National Center for Engineering and Technology Education Doctoral Fellowship (funded by the United States National Science Foundation, <http://ncete.org/flash/news.php>).

PROFESSIONAL WEB SITES AND PAGES

Product design and engineering CADD technology:

- <http://suniseaproducts.weebly.com/> (Home)
- <http://suniseaproducts.weebly.com/research-interests--development-plan.html> (Research Interests & Development Plan)
- <http://suniseaproducts.weebly.com/product-design.html> (Product Design)
- <http://suniseaproducts.weebly.com/cadd-technology.html> (CADD Technology)
- <http://suniseaproducts.weebly.com/technical-drawing--illustration.html> (Technical Drawing & Illustration)
- <http://suniseaproducts.weebly.com/students-works.html> (Students' Works)

Graphic design, visual communication and desktop publishing:

- <http://suniseadesign.weebly.com/> (Home Page)
- <http://suniseadesign.weebly.com/statement-of-teaching-philosophy--pedagogy.html> (Statement of Teaching Philosophy & Pedagogy)
- <http://suniseadesign.weebly.com/research-interests--creative-plan.html> (Research Interests & Creative Plan)
- <http://suniseadesign.weebly.com/portfolio.html> (Graphic Design)

Studio art, digital art, photography, computer animation, and video production:

- <http://suniseacreation.weebly.com/> (Home Page)
- <http://suniseacreation.weebly.com/research-interests--creative-plan.html> (Research Interests & Creative plan)
- <http://suniseacreation.weebly.com/traditional-fine-arts.html> (Traditional Fine Arts)
- <http://suniseacreation.weebly.com/digital-arts--photography.html> (Digital Arts & Photography)
- <http://suniseacreation.weebly.com/fundamentals-of-design.html> (Design Fundamentals)
- <http://suniseacreation.weebly.com/3d-modeling--animation-3ds-max.html> (3ds MAX 3D Modeling and Animation)
- <http://suniseacreation.weebly.com/3d-modeling--animation-maya.html> (Maya 3D Modeling and Animation)
- <http://suniseacreation.weebly.com/3d-modeling-inventor--bryce.html> (Inventor and Bryce 3D Modeling)
- <http://suniseacreation.weebly.com/2d-animation-flash--aftereffects.html> (Flash and AfterEffects 2D Animation)
- <http://suniseacreation.weebly.com/video-production-premiere.html> (Adobe Premiere Video Production)

Research writing and online college-level textbook:

- <http://scholar.lib.vt.edu/ejournals/JOTS/v35/v35n2/pdf/locke.pdf> and <http://eric.ed.gov/?id=EJ906150> (K12 STEM Vision Paper)
- <http://suniseaproducts.weebly.com/free-online-descriptive-geometry--sheet-metal-design-textbook.html> (Online Descriptive Geometry and Sheet-metal Design Textbook)