KENT BOURGOING
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EDUCATION

University of California, Los Angeles (UCLA), Los Angeles, CA *Graduated June 2023*
Bachelor of Science, Chemical Engineering

- **GPA:** 3.49
- **Activities:** American Institute of Chemical Engineers (AIChE) Club, Society of Latinx Engineers and Scientists (SOLES) Club

Los Angeles City College (LACC), Los Angeles, CA *Graduated June 2021*
Associate of Science, General Science

- **GPA:** 3.97
- **Honors:** Full Time Dean's Honor List (Fall 2018 – Spring 2021), President's Honors (Fall 2019 – Spring 2021)
- **Relevant Coursework:** MATLAB For Engineers, Programming in C++, Object-Oriented Programming C++

EXPERIENCE

Chem-E-Car Project from AIChE at UCLA, Los Angeles, CA
Project Team Member *July 2022 – April 2023*

- Designed and constructed a shoebox-sized car powered and controlled by chemical reactions collaboratively with a team of eight undergraduate engineers for the AIChE-sponsored Chemical Engineering Car regional competition, achieving sixth place out of twelve competing teams.
- Created an innovative one-touch system startup feature by designing a printed circuit board (PCB) and developing a program through the Arduino IDE software for the car that operates with a vitamin C reaction clock-stopping mechanism and a zinc-air battery powering mechanism.

Element Materials Technology, Morgan Hill, CA
Engineering Technician *June 2022 – September 2022*

- Enhanced safety and compliance with regulations of client's wireless prototype devices within tight client schedule dates by performing specific absorption rate (SAR) testing using DASY6 system, near-field RF probes, liquid dielectric biomaterial solutions, and RF dipole antennas.
- Conducted rigorous quantitative analysis of prototype devices' potential health effects from RF exposure, utilizing cutting-edge equipment such as MXA Spectrum Analyzer N9020A and R&S CMW 500 Wideband Radio Communication Tester.
- Troubleshoot, and debugged prototype device's connectivity and performance by using Python coding commands, fixing prototype hardware, and comparing performance from different samples or measuring tool devices.

Coffee Machine Technical Project from AIChE at UCLA, Los Angeles, CA
Project Team Member *September 2021 - March 2022*

- Assembled a low-cost coffee machine with a team of four undergraduate engineers and a total budget cost of $72.05 by using 3D printing, laser cutting, and circuitry principles.
- Developed the coffee machine into a fully automated system, offering a user-friendly experience and eliminating the need for manual intervention, through the development of a program using the Arduino IDE software.
- Achieved a third-place ranking out of 12 competing coffee machines by presenting the coffee machine as a market-ready product to the Chemical and Biomolecular Engineering Department at UCLA, setting a competitive market sale price of $125.99.

CELL-MET REU Program at the University of Michigan, Ann Arbor, MI
Undergraduate Research Student *June 2021 - August 2021*

- Developed a quantitative model for the evaluation of organic electronic device packaging by conducting comprehensive research on the methodology and techniques involved in performing an Electrical Calcium Test
- Designed and constructed collaboratively a humidity and temperature-controlled testing chamber, incorporating components such as microcontrollers, solenoid valves, a DHT22 humidity-temperature sensor, and custom-designed printed circuit boards (PCBs).
- Created a precise evaluation method for the efficacy of organic electronic device packaging by utilizing LabVIEW by National Instruments to create a program capable of measuring and recording the conductivity of calcium metal using a Multimeter.

CSU Fullerton Statistical & Data Science Research Experience, Fullerton, CA
Undergraduate Research Student *June 2019 - August 2019*

- Performed the statistical analysis technique known as Least Absolute Selection and Shrinkage Operator (LASSO) on a factorial design using data from a previously published study on the removal of Remazol Yellow Dye (RYD) from an aqueous solution.
- Discovered that pH and Adsorbent Dosage were the most significant factors for RYD removal through comprehensive analysis, utilizing half-normal and LASSO plots within the RStudio IDE software.

EXTRACURRICULAR ACTIVITIES

Society of Latinx Engineers and Scientists (SOLES), a SHPE Chapter, Los Angeles, CA
Transfer Representative *October 2021 – June 2022*

- Supported community college students in their academic and professional pursuits through seven visits to local colleges, leading technical and non-technical workshops (2 hours per visit) covering diverse topics such as resume and interview preparation, LinkedIn usage, UC application guidance, Arduino kit utilization, CAD workshops, and more.
- Cultivated an inclusive and supportive community for Latinx UCLA engineering transfer students by organizing a wide range of social and professional events, including resume-building workshops, game nights, meet and greets, co-hosted study nights, and various other engaging activities.

ADDITIONAL INFORMATION

- **Languages:** English (Advanced Proficiency), Spanish (Native Proficiency)
- **Relevant Skills:** Arduino (4 years of experience), MATLAB Programming Language (3 years of experience), C++ Programming Language (1 year of experience), LabVIEW Visual Programing Language (Less than 1 year of experience), Python Programming Language (Less than 1 year of experience – LinkedIn Learning Certificate), RStudio (Less than 1 year of experience)