Blase Londoño

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Education

University of California, San Diego: B.S. Mechanical Engineering (Exp. 6/28) 7/24 – Present
Specialization: Controls & Robotics
GPA: 3.95 / 4.00
Coursework: MATLAB for Engineering Analysis, Linear Algebra, Differential Equations, Vector Calculus, Mechanical Design, Mathematical Physics, Introductory Fluid Mechanics

Activities

IEEE-Eta Kappa Nu (HKN) Kappa Psi – *Sponsorship Chair*, La Jolla, California 3/25 - Present

- Primary lead for HKN Honors Career Fair email campaign
- Consolidated >20 years' worth of HKN email collections into unified spreadsheet for campaigning efficiency

IEEE-Eta Kappa Nu (HKN) Kappa Psi – *Finance Chair*, La Jolla, California 1/25 – 3/25

- Collaborated with Jacobs School of Engineering Corporate Affiliates Program (JSOE CAP) Associate Director to pitch HKN Honors Networking Event to corporate affiliates

IEEE-HKN MacroPad Project – *Mechanical Subteam*, La Jolla, California 1/25 – 6/25

- Created 2-layer parametric keycap design for integrated 0.6" OLED display
- Applied iterative prototyping to optimize keycap design
- Developed parametric housing design flexible to subteam needs

UCSD Yonder Dynamics – *Electrical Subteam*, La Jolla, California 10/24 – Present

- Reengineered rover power distribution PCB for 24V 60A load
- Reduced PDB footprint by 20% with no component count increase

Projects

Machine and Deep Learning for Pirouette Movement Recognition Project 8/24 – 9/24

- Developed LSTM model in MATLAB to classify dancer movements using IMU time-series data
- Trained on acceleration and gyroscope data, achieving >85% classification accuracy
- Simulated movement recognition and documented results for analysis paper

EVC-4-Me Project 1/24 – 4/24

- Designed lockbox and app system to let EV owners rent out home chargers (Airbnb-style concept)
- Developed Android app in Flutter to control custom stepper-motor locking mechanism
- Integrated Arduino-based hardware; showcased prototype to Santa Monica stakeholders

NASA Invention Challenge 9/23 – 12/23

- Designed latch circuit and soldered custom battery packs for piston release system
- Designed circuit and battery housing, performed finite element analysis on housing using Autodesk Fusion 360
- Gave oral presentation at CIT Jet Propulsion Laboratory campus in La Cañada Flintridge

Skills

- **Software:** Altium Designer, LaTeX, Autodesk Fusion 360
- **Programming:** MATLAB, Python, C++, Arduino C
- **Languages:** Spanish (Native)