Bennett Ngan

bennett.ngan@gmail.com
linkedin.com/in/bennettngan
(408) 455-2266

EDUCATION

University of California, San Diego
B.S. Aerospace Engineering, GPA 3.68
Minor in Product Design
Graduation June 2021

EXPERIENCE

BAE Systems *San Jose, CA*
Mechanical Engineering Intern *June 2019 - Sept 2019*

- Performed statistical tolerance analysis for vehicle by evaluating drawings adhering to GD&T standards
- Resolved part interferences in CAD assembly and created engineering documentation for validation tests
- Optimized CAD assemblies for 3D printing and operated MJP (Multi Jet Printer) to create vehicle mockups
- Coded MATLAB scripts to facilitate BOM reconciliation within company PDM, shortening process by 80%

NewBeeDrone *San Diego, CA*
Mechanical Engineering Intern *October 2018 - May 2019*

- Led engineering efforts for the product development of a new drone from ideation to mass production
- Improved designs for injection molding through DFM techniques and interfacing with manufacturers
- Designed 3 drone frames with SolidWorks and analyzed designs with ANSYS Mechanical FEA, conducting iterative design improvements by building and testing 5+ 3D printed prototypes (FDM, SLA)

Design Build Fly (DBF) *UCSD*
Controls Lead, Team Pilot *January 2018 - Present*

- Engineered the system controls of an RC airplane utilizing servos, receivers, ESCs, and radio transmitters
- Designed and created a lightweight rotating radome and payload dropping mechanism with SolidWorks and 3D printing. Team placed 29th and 34th (2018 and 2019) at competition, out of 100+ teams

World Mission Secondary School *Kigali, Rwanda*
Drone Course Instructor *December 2017 - July 2018*

- Created curriculum and taught a 2-week drone course that was later integrated into the school's IT club. Topics included were the physics and engineering of quadcopters and how to build and fly them

PROJECTS

Racing Drone

- Designed layout, soldered electronics to circuit board, created 3D printed parts and programmed flight controller. Optimized flight performance with PID tuning by analyzing logged IMU measurements

Solar Thermoelectric Generator

- Designed a novel solar energy device utilizing a thermoelectric generator instead of photovoltaic cells
- Project won the Energy Bronze Medal (Top 1% in region) at the I-SWEEEP international science fair

SKILLS

- Tolerance Analysis
- PTC Creo/Pro E
- ANSYS Mechanical
- MATLAB
- SolidWorks
- GD&T
- Product Data Management
- Machining
- 3D Printing
- Java

COURSEWORK

- MATLAB Prog. for Engineering Analysis
- Fluid Mechanics
- Mech I: Statics
- Mech II: Dynamics
- Aerospace Materials Science
- Thermodynamics
- Mathematical Physics
- Solid Mechanics