Jeffrey Anderson

jeffanderson867@ucla.edu
404-983-4994

Education

- **University of California - Los Angeles** — Los Angeles, CA
  Bachelor of Science - Mechanical Engineering - GPA: 3.47 — *Expected June 2022*
  Courses: Intermediate Fluid Mechanics, Advanced Strength of Materials, Principles of Nanoelectronics, Environmental Nanotechnology

Work Experience

- **NanoClear Technology** — Pasadena, CA
  Process Engineer Associate — *May - Sep. 2019*
  - Custom tooling and supporting software for environmental materials testing of nano-enabled super-hydrophobic and super-hydophillic surfaces. Custom chemical process hardware. Porting existing processes to new tooling and applications. Enlisting prototyping manufacturers.
  - **Environmental Chamber**: Environmental chamber for materials testing. Involved Raspberry Pi, Arduino, PID control, and python application. Holds $\pm 0.5^{\circ}$C and -5%RH with cycling behavior.
- **California NanoSystems Institute - Integrated Systems Nanofabrication Cleanroom** — Los Angeles, CA
  Lab Assistant — *Feb. - Jun. 2019*
  - Ordering chemicals, ensuring tools operate within specifications, chemical waste handling, cleanroom specific tasks (particle count, laundry, etc.).
- **Wellstar Kennestone Hospital** — Marietta, GA
  Technician - Advanced Endoscopy Center and Linen Technician — *Jun. - Sep. 2018*
  - Vital signs, patient transportation between rooms, room turnover, inventory, customer service, infection protocol and personal protective equipment
  - Distributing Linen
- **Canister Design** — Woodstock, GA
  Software Development Intern — *Jun. - Jul. 2017*
  - Introductory Swift IOS Development for MacOS and iOS applications, API interaction

Projects

- **Bruin Racing - Super Mileage** — Los Angeles, CA
  Powertrain Lead and Lab Manager — *Sep. 2018 - Pres.*
  - Managing powertrain members and related projects, shop layout and safety procedures
  - **Engine Mount**: Sheet metal design for engine, wheel, and starter motor mounts.
  - **Fuel Pressurization**: Pressure vessel and safe regulation for static fuel pressurization and 3D printed mounting hardware.
- **IdeaHacks2020 Hardware Hackathon, Education Category Winner**: Automatic book reader using vision processing API on Raspberry Pi in under 48 hours. Five person team.
- **IdeaHacks2019 Hardware Hackathon, 1st Place Winner**: RFID bike lock in under 48 hours using CAD, 3-D printers, and Arduino. Five person team.
- **UCLA Department of Mechanical and Aerospace Engineering** — Los Angeles, CA
  Student — *Sep. 2018 - Pres.*
  - **2D Acoustic Mapper**: Planer acoustic mapping using omnidirectional microphones and speaker.
  - **Engineering 96: Rockets**: Carbon fiber and 3D printed model rockets(1-3 ft. in length). Suspended egg payload carrier.
- **For Fun**: ESP32-based bluetooth keyboard(in progress). Raspberry Pi home VPN, network DNS ad blocking, and 3D printing server.

Skills Summary

- **Languages** Python, MATLAB, Julia, LaTeX, Arduino
- **Tools** SolidWorks, GIT, Minimal Simulink and KiCAD
- **OS** Linux(Manjaro, Ubuntu), Windows, MacOS

To Whom It May Concern:

With this letter, I would like to communicate my strong recommendation for Jeffrey Anderson for a mechanical engineering summer internship in your company. Jeff was a summer intern at NanoClear Technologies, Inc. (a JPL/Caltech spinoff initially headquartered in the Magnify incubator program at UCLA) working under my guidance from May 12, 2019 through October 15, 2019. Jeff's initial responsibilities were to design and fabricate fixtures and equipment to enable reliable production of our antifogging products. He quickly demonstrated substantial maturity and independence in these assignments and was therefore given increasingly complex assignments throughout the summer. These projects culminated in his primary project, the design and construction of an Environmental Test Chamber to allow for simultaneous humidity control from ambient to 85% RH and temperature control from below freezing to above 85F. Jeff carried the entire design independently from my initial specifications to developing a parts list, building the prototype, wiring the controls, and writing the user interface/control logic in Raspberry PI. Typical environmental chambers achieving similar levels of control retail for $15-17K while Jeff's fully functional design (not including his labor) was less than $3K. Throughout the project, Jeff gave regular and complete updates regarding his design and its cost. He delivered on time and stuck to the budget that he developed.

In summary, I strongly recommend Jeff for a mechanical engineering internship in your company due to his strong communication skills, hard work, self-motivation, quality work output, positive attitude, and ability to deliver a complete product on budget and schedule even with incompletely specified inputs and specifications. If you would like further information, please do not hesitate to contact me at the email address or phone numbers below.

Best regards,

Frank Greer, Ph.D.
NanoClear Technologies, Inc.
145 N. Altadena Dr. Suite 200
Pasadena, CA 91107
Cell: (415) 271-0192
Email: frank.greer@nanocleartech.com