

# ENG CDO



Sample Engineering  
**COVER LETTERS**



# Howard W. Thurman

Boston, MA ▪ 617-555-9876 ▪ myemail@xmail.com

LinkedIn: [www.linkedin.com/x999x999](http://www.linkedin.com/x999x999) ▪ Portfolio: [www.howardswebsite.com](http://www.howardswebsite.com)

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**CDO Note:** Cold Letter/Letter of Inquiry  
from a FYS seeking academic research

January 1, 2024

Professor Jane Smith, PhD  
Associate Professor of Computer Engineering  
The Smith-Wilson Robotics Lab, School of Engineering  
Saltonpepper University  
Crowley Hall, 99-123 Research Drive  
Little Bend, NC 27517

Dear Professor Smith:

I recently came across your profile while browsing the Saltonpepper University website and your research in the Smith-Wilson Robotics Lab fascinates me! I am especially drawn to your recent work with Machine Learning and its applications to manufacturing, and I would love to contribute to this groundbreaking research and join your lab this summer as a Research Assistant. Please accept my CV in application for any potential openings you may have. I am confident I have the technical and interpersonal skills necessary to make an immediate impact.

I am pursuing a career in robotics research and my first year as a Computer Engineering major at Boston University has started me on that path. I recently developed an interactive adventure game application with a graphical interface in Python. The game uses a simple artificial intelligence to anticipate the game player's moves based on earlier choices, forcing the user to continuously improve as the game learns how to defeat them. The experience really sparked a passion for AI in me!

I have demonstrated the high attention to detail and accuracy that research demands. As Secretary of my high school Robotics Club, I recorded minutes of every meeting, maintained all membership records, and assured that we complied with all school regulations for funding. My activities with the Robotics Club also required me to learn new skills and technologies. Last year I taught myself the fundamentals of using an Arduino board for mapping circuits, demonstrating that I am a quick learner requiring minimal oversight and training. I am eager to bring these qualities to your lab and contribute to new discoveries!

The Smith-Wilson Lab is at the forefront of Machine Learning and Robotics research, and the opportunity to contribute there as a Research Assistant would be an important step in my journey to a PhD in Robotics and Autonomous Systems. I would welcome an opportunity to discuss your research and the ways I can support it in more detail. I am also pleased to answer any questions you have about my skills, experience, and long-term academic goals. I plan to be in the Little Bend area during Spring Break the third week in March and would be happy to meet in person, I am also available by phone or over Zoom at your convenience. I look forward to hearing from you.

Sincerely,

Howard Thurmon  
Boston University  
College of Engineering, '27

# Scarlet Beltano

[youremail@bu.edu](mailto:youremail@bu.edu) | 617-555-1010 | Bigville, CA 95420

**CDO Note:** A sophomore with no previous experience applying for an internship

January 1, 2024

Johnson Semiconductors  
123 Corporate Drive, Building 2  
Los Angeles, CA 90001

Dear Hiring Manager:

I am excited to apply for the **Electrical Engineering Intern** opportunity at **Johnson Semiconductors**. This opening was listed on BU's Handshake recruiting site, and after meeting with your representative **Mr. Joe Rodriquez** at the **BU Engineering Career Fair** last week I am confident my experience designing sensors and my previous leadership roles have prepared me to succeed in this position.

I love to design circuits and experiment with new technologies. I recently worked with a team of electrical and mechanical engineers to develop a remote basement flooding detector that notifies a homeowner of problems via a mobile app. It was exciting to map the circuits with Arduino and a breadboard, then see everything I'd learned being put into practice. Designing the sensor unit and collaborating with my teammate working on the mobile app to ensure the two components could communicate with each other also let me develop my C++ programming skills. To boost my design and manufacturing skills, I contributed to a Stirling engine project and used SolidWorks to create mechanical drawings for most of the working parts, then modeled, machined, and assembled them. My designs met or exceeded all requirements and deadlines. As an intern at Johnson Semiconductors, I would bring this same approach and commitment to success to my work.

By serving as an active member of my school's IEEE chapter and attending its events with guest speakers, I have improved my professional communication skills. I am also involved with the BU Robotics & Ambient Intelligence Labs (RAILS) group where I was recently selected to lead the user-interface design team. I am looking forward to the challenge and further developing my leadership skills through this experience.

When I read about Johnson Semiconductors and its groundbreaking research in integrated circuits, I knew it was the place for me. I hope we can meet soon to talk further about what I can add to the team. I look forward to hearing from you.

Best regards,



Scarlet Beltano  
Boston University

**CDO Note:** A sophomore or junior applying to a prestigious funded research program

**Rachael Shapiro**  
Boston, MA  
yourmail@bu.edu  
617-555-1234

January 1, 2025

Professor Toshina Harrison  
Director, Harrison Research Group  
Big State University College of Engineering & Technology  
357 Academic Circle, JPL 315  
Middleton, OK 73100

Dear Dr. Harrison:

Please accept my CV in application for the **Summer 2025 Research Experiences for Undergraduates (REU) Program in Pharmaceutical and Biological Engineering** in your research lab. When **Professor Jane Smith** in the Biomedical Engineering department at Boston University forwarded me the flyer announcing this opportunity, I jumped at the chance to apply. I know that biomedical research is the career path for me, and I am hopeful that my research experience, passion, and organizational skills will allow me to make an immediate contribution to your group.

My experience as a Research Assistant at the BU Smith Nanomedicine Lab has deepened my understanding of Biomedical Engineering and its role in new drug development. I contributed to the development of innovative drug and gene nanocarriers with the goal of delivering targeted medicines to treat rare lung cancers. I have performed all steps in the tissue culture preparation including aseptic techniques, preparing media with the appropriate characteristics, passaging, freezing and storage, recovering frozen stocks, and counting viable cells. Currently I am preparing a 3-D co-culture in-vitro model of lung cancer in order to investigate the efficacy of the targeted nanomedicine delivery systems. At the end of the semester, I will deliver a presentation to Professor Smith and her PhD student about my findings. I have learned so much throughout this experience and I hope to be able to use my skills to contribute to your work and further my understanding of pharmaceutical drug development.

Part of what attracts me to this opportunity is the emphasis on individual project work while also interacting with the larger team. I love taking ownership of a project from conception to realization while still collaborating with my peers. Recently I volunteered to develop a proposal to overhaul the peer mentoring program of BU's Society of Women Engineers (SWE) chapter. I worked largely alone, researching successful and less successful models used elsewhere, but touched base regularly with the chapter's Outreach Marketing Chair and President to ensure my proposal aligned with their expectations. My proposal was accepted and will be implemented next semester.

I am applying for this REU not only because I look forward to graduate school and a career in pharmaceutical research, but also because it is an opportunity to make a direct impact while being part of a diverse community of enthusiastic researchers. Scientists who devote themselves to treating the rarest of illnesses are a special breed, and I see it as my calling. I am happy to answer any questions about my skills, experience, and career goals, and look forward to the next step of the application process. Thank you for your consideration.

Best regards,



Rachael Shapiro

# Ko Yo-Han

**CDO Note:** Cold Letter/Letter of Inquiry  
from a junior seeking an internship

Allston, MA | [koyomail@bu.edu](mailto:koyomail@bu.edu) | 617-555-1234

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January 1, 2025

Ms. Martha Nguyen  
University Recruiting Specialist  
Replac-U Robotics Corporation  
1122 Long Drive Road  
Jupiter, FL 33468

Dear Ms. Nguyen:

I remember my excitement when I completed my first robotics project. It was a simple design for a high school robotics competition and though our team didn't make it to the finals, it sparked my passion for robotics. Now I'm pursuing that dream with my application to join Replac-U Robotics as an intern. My robotic project work, ability to self-teach, and formal education have prepared me to be a valuable addition to your team.

I first developed my technical, teamwork, and time management skills participating in the First Robotics Competition as a member of FRC team 9999. Our challenge was to design and build a robot in six weeks. On the design team, I gained considerable experience with CAD, as well as exposure to CAM, by programming toolpaths for our CNC router and designing and printing small parts on the Fused Deposition Modeling 3D printers. As the team's Strategy Lead, I gained valuable leadership and analytics experience, overseeing the team's strategy discussions and planning, setting design priorities, and matching strategy to address the unique challenges of each season's competition. I also developed a system for scouting other robots in order to make data-driven decisions about alliance selection and matchups. Since coming to BU, I have learned a great deal more about the fundamentals of the engineering design process and how to work collaboratively on a team to conceptualize and execute a project. My current assignment is programming a Franka Emika Robotic arm to replicate the manufacturing cycle of an inorganic material synthesis process. This has honed my C++ programming skills and taught me a lot about how software interacts with the mechanical elements.

I have demonstrated quick learning and a minimal need for training to acquire new skills. When developing my FRC team's scouting platform, I taught myself the data visualization software Tableau, and gave a presentation on my system at the Midwest Championship at Perdue the following season. As a participant in the design stage of BU Rocket Propulsion Group's high-powered rocket competition, I was placed in a small team of students, all with no prior rocketry experience. Under tight deadlines, we learned the basics of rocket design and developed a full launch vehicle with a 2000-foot target apogee with complete documentation including BOM.

Although there is not currently an internship position posted at Replac-U Robotics this summer, I hope to bring my skills and experience to your team. If you would like to learn more about what I can do for you, I have enclosed a resume and would welcome an opportunity to discuss what I have to offer. Thank you.

Sincerely,

Ko Yo-Han  
Boston University, '27

# WARREN F. TOWERS

[mailme@bu.edu](mailto:mailme@bu.edu) • 617-555-9876 • Boston, MA

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**CDO Note:** Referral Letter from graduating senior seeking entry-level position

January 1, 2025

NASA Goddard Space Flight Center  
8800 Greenbelt Road  
Greenbelt, MD 20771

Dear Hiring Manager:

**Ms. Theresa White, Propulsion Engineer III** at Goddard, recommended that I apply for the **Mechanical Engineer, Flight Testing** position at **NASA Goddard Space Flight Center**. As an Aerospace Engineer at Boston University, I admire Goddard's cutting-edge research and collaborative culture which enables your team to make significant contributions to space exploration. My industry experience in engine design and manufacturing, combined with my leadership skills, make me a strong fit for this role.

As the Propulsion Design Intern at Horizon Flight, Inc. (HFI), I successfully designed two large-scale tooling assemblies for the vacuum engine. When I began I was unfamiliar with the intricacies of designing with SolidWorks, but through practice and asking questions I quickly developed my proficiency and individually modeled and drafted over 200 components. I learned to collaborate with many departments, including Manufacturing and Quality Assurance, to comply with all technical and manufacturing specifications. I delivered a modular, cost-effective solution on an aggressive timeline saving hundreds of technician hours. In my next project at HFI I contributed to my team by performing hand calculations to analyze the stress, fluid flow, and heat transfer in three combustion test rigs. I frequently conducted analysis in areas beyond my expertise by independently studying technical papers. My analysis contributed to design changes that mitigated issues such as reducing overheating of components by 60%. My success in learning and implementing new technical concepts makes me confident I will be able to master the learning curve associated with flight testing.

In my leadership roles as Dean's Host and Orientation Leader, I communicated with hundreds of prospective students and parents and mentored dozens of new students to enable a smooth transition to college. Through these experiences I have developed the interpersonal skills needed to succeed in a dynamic and highly collaborative work environment such as Goddard.

Since childhood, my passion has been for space flight and rocketry, and I am eager to contribute to NASA's missions of space exploration and scientific discovery. I would welcome an opportunity to discuss my qualifications and what I have to offer to you in further detail. Thank you for your time and consideration.

Sincerely,

*Warren Towers*

Warren F. Towers

Zoerina Jackson  
Boston, MA  
617-555-9991  
terrier@bu.edu

**CDO Note:** A graduating senior applying for an entry-level position

January 1, 2025

Sterlyng Therapeutics, Inc.  
1122 Oceanfront Avenue, Suite 401  
Omaha, NE 68007

To Whom it Concerns:

I am very interested in the **Junior Scientist, Drug Discovery** position currently listed on **Sterlyng Therapeutics'** website. My passion is using STEM to improve human health and quality of life, and my research experience as a Biomedical Engineering student makes me a good fit for this role.

My background is cemented in the life sciences, with emphasis on biotechnology, both outside and inside the classroom. For the past two years I have worked as a Research Assistant at the Boston University Medical Center, with a focus on improving existing treatments of cardiovascular disorders. I contributed to a published peer-reviewed research article summarizing the use of analytical methods within a devised MATLAB program to describe physical phenomena of heart valves. I made regular journal entries and developed an understanding of making careful documentation of lab results, as well as the role of regulatory compliance in medical research. As a Junior Scientist at Sterlyng, I would use these same analytical, problem solving, and fundamental lab skills to contribute to your mission of developing treatments for enzyme deficiency disorders.

Throughout college my participation in biotechnology and neuroengineering courses and labs strengthened my interest in bioengineering and cellular research. I enjoy applying what I have learned to real-world applications through projects. My courses have allowed me to further explore lab research in biomedical applications such as measuring effects of stimulants with an EKG as well as cell research involving polymerase chain reaction, molecular cloning, and protein research, key experiences that have prepared me to make immediate contribution to your team.

Sterlyng is at the forefront of enzyme deficiency disorder research, helping people live normal lives who might have otherwise not had that chance. I am eager to join the team and bring my skills and knowledge to supporting this research. I would welcome a chance to discuss this opportunity and my qualifications with you in person. Thank you for your consideration.

Sincerely,



Zoerina Jackson



# Julio de la Cruz

**CDO Note:** LEAP student with a previous career applying for an entry-level position

(617) 555-5555

Boston, MA

juliosemail@bu.edu

Portfolio: [www.juliossite.com](http://www.juliossite.com) | LinkedIn: [www.linkedin.com/mylinkedinprofile](http://www.linkedin.com/mylinkedinprofile)

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January 1, 2024

Ms. Keyshia Horton, Chief People Officer  
Fairway Business Logistics  
4 Walnut Place, 7th Floor  
Boston, MA 02116

Dear Ms. Horton:

Having followed Fairway's journey from startup to success over the years, I am thrilled to apply for its **Data Science & Systems Engineer I** position listed on Indeed.com. My commitment to Fairway's mission of success through analytics, and my non-traditional background for an engineer make me an excellent candidate for this position, capable of delivering significant value to Fairway.

My technical experience aligns well with the requirements of this role. I recently developed two applications employing AI, a music recommendation system and a predictive model for hurricanes. Both projects required detailed knowledge of Java and C++ to build all layers of a mobile application and allowed me to put cumulative AI theory into practice beyond common use of black box tools. This deepened my understanding of the core mathematical and probabilistic concepts underlying these algorithms. As the technical lead for the hurricane prediction model, I gained experience planning architecture and database structures that met the needs of the application while leveraging the technical skills of my team. My previous experience as the Operations Lead at Quint Business Solutions prepared me to recognize the individual strengths of those on my team and delegate tasks to take advantage of those strengths while also giving individuals opportunities to grow and learn new skills.

My path has been different from other engineers. Boston University's Late Entry Accelerated Program has given me the technical foundation to bridge my undergraduate degree in Economics and professional experience in business administration, with my current work towards a Masters in System Engineering with a Specialization in Data Analytics. This allows me to approach engineering solutions from a different perspective, mirroring the diverse company culture that Fairview cultivates. I am eager to bring my unique qualities to your team!

I believe my experiences and skill set align with the qualifications Fairway seeks in a candidate. I possess the confidence and abilities to succeed in this role and have the passion to push beyond expectations to truly make an impact. I would appreciate the opportunity to discuss what I have to offer and I look forward to scheduling an interview at your convenience. Thank you for your consideration.

Best regards,  
**Julio de la Cruz**