



ALEK N. TURKMEN

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EDUCATION

The Cooper Union, Albert Nerken School of Engineering

New York, NY

Bachelor of Engineering, Mechanical Engineering, Economic and Public Policy Minor

August 2021 - May 2025

- Half Tuition Scholarship (4 years), Cooper Union Merit Grant (4 years), ACE Mentor Scholarship (4 years)

PROFESSIONAL EXPERIENCE

Northrop Grumman

Baltimore, MD

Manufacturing Engineer Intern (11 Weeks)

May 2023 - August 2023

- Monitored production assemblies of high-quality mission-critical systems for AMEC, SMT and automated feed factory
- Pioneered optical character recognition for manufacturing inspection RPA with 93% speculative time and cost reduction utilizing 3D AOI/CMM instrument metrology, integrating systems with database using Python, MATLAB, Microsoft SQL
- Presented findings in auditorium of new inspection process to directors, vice presidents, and managers of BWI facility
- Employed Excel and MATLAB for high-quality output of organic/ceramic microelectronic packages, bare chip/wire assemblies, and hermetic sealing; improving processes, product integrity, and longevity, while eliminating chip defects
- Comprehensive quality analysis using, Minitab, GR&R, lean manufacturing, 6sigma, capability study, and ANOVA

Loisaida Inc.

New York, NY

Remote Sensing IoT Technician (Part Time)

September 2022 - May 2023

- Designed and constructed custom 3D printed enclosure of portable multi-sensor device to analyze residential building environments performing systematic testing to ensure durability, strength, and resistance to UV and water degradation
- Tested enclosure to perform at environmental operating limits (humidity, temperature, particulate matter accumulation)
- Worked with a 3D printer and machines lab, using Inventor, OnShape, CNC machining, VCarve and SOLIDWORKS

Jaros, Baum & Bolles

New York, NY

HVAC Summer Intern (10 Weeks)

June 2022 - August 2022

- Designed 5 Tenant fit-out projects using Revit (BIM) with limited supervision including 540 Madison, One Bryant Park, OWTC, Hallet Towers and completed specific tasks on building/infrastructure upgrades; schedules, and floor plans
- Reviewed shop drawings, construction documents, construction administration of RFIs & client submittals, and performed 3 site visits and punch-lists with limited supervision to verify that designs and specifications were implemented accurately
- Planned and coordinated routing of major distribution, main equipment rooms, risers, and commercial/residential spaces
- Led design tasks that support the overall trade system (branch circuiting, ductwork distribution, piping distribution, latent and sensible heat load calculations, static air pressure calculations, equipment selection and sizing, sustainability analysis)

LEADERSHIP AND EXTRACURRICULAR ACTIVITIES

The ACE Mentor Program of Greater NY

New York, NY

Alumni & Civil Engineer & Lead Architect

October 2019 - Present

- Currently ACE Mentor Alumni, regularly attends and presents information in alumni internship and college info webinars
- Explored fundamentals of civil/structural engineering, MEP, and construction management from industry professionals
- Worked toward a final project, introduced to careers, industry vocabulary, and roles companies play in the ACE industry

Engineering Student Council & Joint Student Council, The Cooper Union

New York, NY

Treasurer & ME Class of 2025 Representative

September 2021 - Present

- Represents, advocates, and takes actions for the best interests of student body at the Albert Nerken School of Engineering
- Organized and managed semesterly budget, including finals week Mid-Night Breakfast and fundraising events

ASME PD L.E.A.D. Program

Houston, TX

Member

September 2023 - Present

- Selected as one of 15 students from across the nation; gained invaluable knowledge about Gas, Oil & Energy industry
- Collaborated with small team to expand novel decarbonization ideas of upstream operation, drilling, and site management

Alpha Epsilon Pi, New York University

New York, NY

Executive Board Member & Social Chair & New Member Chair

January 2022 - Present

- Managed and distributed a yearly budget of \$100,000, organizing 30+ philanthropic, social, and new member events

SKILLS & INTERESTS

Skills: Python, MATLAB, AutoCAD, Revit, Inventor, SOLIDWORKS, NX/Siemens, Linux, Adobe Pr, Ps, Ai, Arduino

Interests: Power-Lifting, Avid Reader, Self-Improvement, Entrepreneur, AI, Astrophysics, Investor, Raspberry Pi, Automation