

# LONG NGUYEN

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**OBJECTIVE** I am currently exploring engineering opportunities in renewable energy and conservation.

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**SKILLS & ABILITIES** I am a technology veteran with approximately 12 years of customer facing technical communication, employee training, engineering, software development, and industrial manufacturing experience. During my career, I have directly created precision die cutting tools, designed solar tracker components, and developed mechanical design software for large scale utility solar farms while training and leading small teams with a global impact.

**EXPERIENCE** **MECHANICAL DESIGNER, PROVISION SOLAR**

January 2019- Present

- Interface with sales team/ customers on design criteria
- Developed templates for solar permit packages
- Created configurable 3D CAD models of solar mounting equipment
- General site surveyor/ layout specialist for East Hawaii
- Gather dimensional/electrical data for design process

**CONSULTANT SOFTWARE DEVELOPER/MECHANICAL DESIGNER, KILONEWTON LLC**

August 2018- Present

- Completed automated design/ drafting software for solar configurator (see Array Technologies for details)

**LEAD TECHNICAL GENERALIST/ TRAINER AND COORDINATOR, ARRAY TECHNOLOGIES**

**Process Developer/Trainer** January 2015- August 2018

- Re-develop design/drafting/quoting process through software development/software integration
- Trained customer facing in-house and affiliate company designers/engineers in:
  - AutoCAD/ Solidworks
  - In-house design software usage
  - Technical/ Mechanical capabilities of solar tracker system
  - Macro/script development for automated structural design
  - Customer support
- Compressed design/quoting times from 4-6 hours down to 10 minutes (final designs created at quote stage)
- Developed process for instantaneous generation of construction plans from Excel

**Applications Engineering/Project Engineering/ Field Work** January 2015- August 2018

- Design/draft construction plans for 1GW-3GW of solar farms annually
- Layout/stake column positions for test solar trackers.
- Coordinate test structure builds (270 Solar Panels)  
<https://goo.gl/maps/HhYXBQcz6qLBkUHf8>
- Communicate technical/mechanical requirements with customers
- Study site criteria and 3<sup>rd</sup> party products to generate solutions for customers

**Software Developer** January 2015- August 2018

- Independently envisioned, designed, specified, and developed automated drafting software for solar tracker construction plan sets with a maximum of 1000 CAD entities (dimensions, labels, and components).
- Created Arraynger software stack with: Java, Excel, Visual Basic, AutoCAD, Lisp (Arraynger is currently used at Array Technologies as the sole design verification/drafting software for all projects totaling approximately 3GW/year)

**Mechanical Designer/CAD Specialist** January 2015- August 2018

- Developed CAD block library for rapid configuration of site-specific designs
- Designed new mechanical components (Sheet metal, PVC, extruded, roll-formed)
- AutoCAD/Solidworks Trainer

**Space Planning/Facilities Manager** January 2015- August 2018

- Project manager for office re-configuration.
- Organized weekend office builds/ moves for ~90 employees
- Layout/ configure cubicle spaces
- Coordinate roofing, HVAC, plumbing and electrical contractors, cubicle suppliers, vendors, painters, and mural installers

**Solar Farm Portfolio**

- <http://edifyenergy.com/projects/daydream-solar-farm/>
- <https://www.pnm.com/solar1>
- <https://solarindustrymag.com/ati-supplies-trackers-to-191-mw-springbok-2-solar-farm>
- [https://calpolynews.calpoly.edu/news\\_releases/2017/january/Solar](https://calpolynews.calpoly.edu/news_releases/2017/january/Solar)

**ADA TECHNICIAN UNIVERSITY OF NEW MEXICO**

2011-2012

- Completed 20% of UNM campus ADA survey independently
- Created database with all issues noted

**AUDIO VIDEO TECHNICIAN: CNM COMMUNITY COLLEGE**

2005-2006

Setup multimedia systems for corporate/Educational presentations

**PROPERTY /LEASING MANAGER**

2005- 2017

- Maintain leases for ~13 properties (single family/triplex)
- Renovate properties
- Maintain swamp coolers/furnaces
- Replace appliances as needed
- Interview/ sign tenants into leases
- Evict tenants/ rehab units and houses

## EDUCATION

### **UNIVERSITY OF NEW MEXICO/ CNM COMMUNITY COLLEGE**

2002-2007, 2010-2011

Degrees B.S. Education with A.S. Engineering core Engineering Classes

Coursework: Curriculum: Calculus 3, Physics 2, Chemistry 2,

CNC & manual machining, welding, Drafting, C++,

PLC: LAB+THEORY, Electrical Engineering/Microprocessor Programming

## REFERENCES

**John Williamson:** Array Technologies Director of Engineering

John@kilonewtonllc.com 505 903 3934

**Kevin Phelan:** Array Technologies Lead Engineer

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**Aik-Siong Koh:** CAD Software Engineer/ Creator of FreeCAD

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