

Maximo Machado

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EDUCATION

Master of Science <i>Photonics</i> University of Eastern Finland	Aug. 2019 – May 2021 Joensuu, Finland
Bachelor of Arts <i>Major: Physics, Minor: Education</i> Austin College	Aug. 2016 – May 2018 Sherman, TX
Associate of Liberal Sciences North Lake College	Aug. 2015 – May 2016 Irving, TX

WORK EXPERIENCE

Integration Engineering Intern Finisar Corp. <ul style="list-style-type: none">Worked in ISO 4 cleanroom developing applications to improve efficiency and creating specsEmployed metrology and microscopy for failure analysis and developing process for wet etchingMember of Emergency Response Team	June 2018 – August 2019 Sherman, TX
Laboratory Assistant North Lake College <ul style="list-style-type: none">Inventoried and maintained Physics Department lab equipmentPhysics tutoring	January 2016 – July 2016 Irving, TX
Assistant Manager Sun & Ski Sports <ul style="list-style-type: none">Led a team of 20+ employeesRan social media, as well as all grassroots marketing	December 2006 – August 2015 Austin, TX

PROJECTS AND RESEARCH

Surface Plasmon Propagation in the Kretschmann-Raether Configuration <i>Python</i> University of Eastern Finland	Fall 2020
Simulation of Vector Beams Through High Numerical Aperture Lens <i>Python</i> University of Eastern Finland	Fall 2020
Characterization of the Flame-S Spectrometer for Spectral Imaging Research University of Eastern Finland	Spring 2020
Free Form Lens Systems for 3D Printing <i>MATLAB, OpTaliX</i> University of Eastern Finland	Spring 2019
Procedures for Plating and Wet-Etching in III-V Semiconductor Devices Finisar Corp.	Summer 2019
Photo-Filter Characterization for Photometric Identification of Be Stars Austin College	Fall 2017
Improved Calibrating Equations for Volumetric Soil Moisture Measurement Austin College	Spring 2017
Product Design, and Manufacturing Using 3D Printing <i>Autodesk 123D</i> Austin College	Fall 2016

CONFERENCES AND PRESENTATIONS

Photometric Filter Fidelity and Use for Be Star Identification

November 2017

Austin College Physics Research Seminar

Reflectometry for Volumetric Soil Moisture Measurement

May 2017

Austin College Atmospheric Physics Fair

Design and Manufacturing of Products using 3D Printing

April 2017

Austin College Student Scholarship Conference

HONORS AND AWARDS

Dean's List

Fall 2017

Recognition for to 20% of students in academics at Austin College

Noyce STEM Education Leadership Scholarship

June 2017

Merit based grant for students pursuing education in STEM fields

Stephens Scholarship

May 2017

Merit based scholarship to support international study experiences within Austin College

John D . Mosely Scholarship

July 2016

Merit based scholarship requiring Austin College alumnus nomination

Presidents List

Spring 2016

Overall GPA above 3.8 at Austin College

Eagle Scout

April 2006

Highest level of achievement within the Boy Scouts of America

TEACHING EXPERIENCE

High School Physics (11 Weeks Teaching/Observing)

Fall 2017

Denison High School

Denison, TX

High School Calculus (11 Weeks Teaching/Observing)

Fall 2017

Denison High School

Denison, TX

High School Geometry (9 Weeks Teaching/Observing)

Spring 2016

Sherman High School

Sherman, TX

COMMUNITY INVOLVEMENT

Austin College Community Tutors

Fall 2017 – Fall 2018

Free tutoring for local students in science and mathematics

Sherman, TX

River Legacy Nature Center

September 2015 – August 2016

Provided assistance for various youth science education programs

Arlington, TX

Back on My Feet Run Club

April 2014 – August 2015

Helping to reestablish homeless persons in the community

Austin, TX

SKILLS

Languages: English (Native), Spanish (B1), Finnish (A1)

Programming: Python (NumPy, SciPy, Matplotlib, Pandas), MATLAB, Mathematica, Java

Document Creation: Microsoft Office Suite, LaTeX, Markdown