

Angeline Aguinaldo

e-mail: angeline.m.aguinaldo@gmail.com | website: angelineaguinaldo.com
Specializing in Computer Vision and Image Analysis algorithms

EDUCATION

DREXEL UNIVERSITY

MS IN ELECTRICAL ENGINEERING
June 2017 | Philadelphia, PA
GPA: 3.87

ENGINEERING MANAGEMENT

GRADUATE CERTIFICATE
June 2017 | Philadelphia, PA

BS IN BIOMEDICAL ENGINEERING
June 2017 | Philadelphia, PA
Conc. in Medical Devices and Imaging
College of Biomedical Engineering
GPA: 3.62

COURSEWORK

GRADUATE

Probability & Random Variables
Detection & Estimation Theory
Random Process & Spectral Analysis
Fundamentals of Computer Vision
Programming Foundations
Pattern Recognition
Media Forensics & Security

UNDERGRADUATE

Human Physiology I, II
Computational Bioengineering
Transform Methods I, II
Medical Imaging Systems I, II, III
Biomedical Instrumentation
Digital Signal Processing
Probability & Statistics

SKILLS

PROGRAMMING

Python • MATLAB • C++ • Java •
JavaScript • OpenCV • SQL

SOFTWARE

MS Visual Studio • VBA • Eclipse •
GitExtensions

RECOGNITIONS

- 2016 Janelia Undergrad. (HHMI),
Program Finalist
- 2015 Charles E. Etting Award,
Scholarship Recipient
- 2014 Student Leader of the Year,
Award Recipient
- 2012 A.J. Drexel Award,
Scholarship Recipient

PROFESSIONAL EXPERIENCE

QUEST DIAGNOSTICS | SUPPLIER QUALITY ENGINEERING CO-OP

Mar 2015 - Jan 2016 | Collegeville, PA

- Implemented corporate wide deployment of supplier information and performance management software
- Managed procurement communications with Quest Diagnostics' lab testing product suppliers

SRI INTERNATIONAL | ELECTRICAL ENGINEERING CO-OP

Mar 2014 – Sept 2014 | Princeton, NJ

- Designed preliminary circuit schematics for biometric identification systems
- Programmed and debugged sleep mode functions on Atmel microcontroller
- Performed senior engineer-level testing and data processing for CCD and CMOS camera imagers
- Drafted test protocols and high level design documents (HDD) and conducted cost-analysis of high-volume Bill of Materials (BOMs)

RESEARCH EXPERIENCE

BIOIMAGE ANALYSIS LABORATORY | GRADUATE RESEARCHER

Jan 2015 – Present | Philadelphia, PA

Worked with **Dr. Andrew Cohen** at Drexel University to develop **LEVer**, an automated cell analysis, lineaging, and editing software.

- Design advance object segmentation and tracking algorithms to characterize proliferation models of various cell types (i.e. non-small lung cancer cells, neural progenitor cells, T-cells, embryonic stem cells)
- Develop solutions for mitotic detection screening which include data intake, data cleaning and processing, feature extraction, graph traversing, and designing machine learning ensembles

PRINCETON QC LASER LAB | UNDERGRADUATE RESEARCHER (REU)

Jun 2013 – Aug 2013 | Princeton, NJ

Worked with **Dr. Claire Gmachl** at Princeton University to enhance gain in quantum cascade (QC) lasers to be used in applications such as non-invasive blood glucose monitoring.

- Built experimental set-up and conducted data acquisition of tunable QC lasers to determine viability of various designs
- Analyzed electroluminescence spectrum measurements to identify improvements in laser gain in Origin 8.5

SENIOR DESIGN PROJECT

DISEASY Sept 2016 – May 2017 | Drexel University

A web application that predicts and visualizes disease likelihood using machine-learning models generated from clinical laboratory data.

Stakeholder: **Dr. Anita Gupta**, Vice Chair of Pain Medicine at Hahnemann University Hospital.

PUBLICATIONS

M. Caino, J. H. Seo, A. Aguinaldo, et. al., *A Neuronal Network of Mitochondrial Dynamics for Go-Or-Grow Decisions in Cancer*, Nature Communications. 2016.