

Linnaeus Bundalian

CONTACT	Email : linnaeusbundalian@gmail.com Phone : +33648003816 Website : linnaeusbundalian.com	
EDUCATION	Ecole Centrale de Lille , France <i>M.Eng., Biomedical Engineering</i>	2019 - 2021
	Lyceum of the Philippines University (LPU), Calamba, Laguna <i>BSc in Computer Engineering</i>	2009 - 2014
SCHOLASTIC AND OTHER ACHIEVEMENTS	<ul style="list-style-type: none">• Department of Science and Technology Scholarship - Philippines (DOST) - 2019• DOST-Data Science Scholarship - 2020.• Continental Temics Electronics Scholarship - 2012.• University Scholarship - 2009 .• Dean's List (High performing University Students) - GPA 1.64 (1 as the highest)• Ranked 1st out of 19 Students of his specialization• TOEIC Language Test 900/990 2014.	
PUBLICATIONS	L. Bundalian, R. Parino, and R. Caldo, Type 1 Fuzzy Logic Classification of Pain Severity (Pain Assessment) ; <i>6th International Conference Humanoid, Nanotechnology, Information Technology Communication and Control, Environment and Management (HNICEM), 2013</i>	
RESEARCH EXPERIENCES	Inference of miRNA Expression in Single Cell level , INSERM, France Feb 2021 onwards Guide: Laurent Guyon This project intend to investigate the correlation between mRNA and miRNA to be able to build a model predicting miRNA expression in single cell level.	
COURSE PROJECTS	Monte Carlo Simulation of Photon Transport in Biological Tissue	Dec 2019 - Jan 2020
	Guide: Yanick Dusch, Centrale Lille The objective of this project is to simulate how photons are transported in biological tissues for biomedical applications. The simulation was implemented through Monte Carlo Method on top of Python development environment. .	
	Optical Pulse Oximeter Design	Dec 2019 - Jan 2020
	Guide: Marc Goueygou (IEMN), Centrale Lille The project is aimed to create a custom photoplethysmography device for measuring the oxygen saturation and pulse rate of a patient.	
	Finger Orthosis for EDS Patients	Jan 2020 - Feb 2020
	Guide: Olivier Mayeur (BioTIM), Centrale Lille The end goal is to create a orthosis to address the need of Ehler-Danlos patients (EDS) by providing a constraint on their hypermobile joints.	
	Characterization of Mechanical Properties of Bladder Tissue	May 2020 - June 2020
	Guide: Laure Astruc (BioTIM), Centrale Lille A project designed to model the complex mechanical properties of sof tissues (i.e. bladder). Characterization was done using image processing of dataset from a custom tensile stress machine in the BioTIM laboratory.	
	Optimization of Foot Prosthesis Design	June 2020 - July 2020
	Guide: Olivier Mayeur (BioTIM), Centrale Lille This project aimed to gather and compare existing designs of foot prosthesis, checking their ergonomic and mechanical efficiency through simulation. The observations from the simulation are used to come up with an innovative design addressing the common problems among the other designs.	

Anthromorphic EMG-driven Prosthetic Arm

Oct 2020 - Jan 2021

Guide: Olivier Mayeur (BioTIM), Centrale Lille

A design for a prosthetic arm was created aimed to address the need of a responsive arm replacement for amputees.

Fetal Head Modelling for Simulated Delivery

Jan 2021 - Feb 2021

Guide: Olivier Mayeur (BioTIM), Centrale Lille

The aim of the project was to create a 3D fetal head model that can mimic the mechanical properties of fontanelles.

**PROFESSIONAL
EXPERIENCES
(INDUSTRY)**
Backend Developer - VCG Global, Philippines

June 2020 - present

Created the RESTful APIs bridging the Web user interface to the backend services, records and database.

Backend Developer - SPACECrop, Budapest, Hungary

Jan 2021 - present

Aids in creating the backend services and creating a predictive model for soil moisture requirement of farms in Hungary.

Software developer - RCaldor Consultancy, Batangas, Philippines

Dec 2017 - Sept 2019

Aids in creating the backend services and creating a predictive model for soil moisture requirement of farms in Hungary.

Test Engineer - Continental Temic, Philippines

Jun 2014 - Oct 2020

- Monitor machine performance which includes but not limited to First Pass Yield (FPY), Overall efficiency (OEE) and Process Capability.
- Develop and maintain test programs for machines and products.
- Train people in operating machines and performing failure analysis.
- Perform analysis on test data and failed parts.

Software Developer - Freelance, Philippines

Nov 2013 - Oct 2020

Created software applications running on top of different platforms (desktop, web, IoT/MCU)

OTHER TRAININGS

- Genomics Virtual Lab (Pine Biotech) - 2020
- Next Generation Sequencing (Arkelin Philippines) - 2019
- Data Science Summer School (Lviv, Ukraine) - 2020
- PROJECT SPARTA PH: Data Science Track - 2020
- Bioinformatics Specialization (UCSD Coursera) - 2020
- Genomics Data Science (JHU Coursera) - 2020
- Data Science (JHU Coursera) - 2021
- Drug and Development Science (JHU Coursera) - 2021

SKILLS**Bioinformatics**

Gene databases, TCGA, RNA sequence analysis, Single Cell Analysis, Bioconductor, GSEA

Programming

R, Python, C#, .NET, VBA, C, C++, MATLAB, .NET Core, CVI

Electronics

LTSpice, Circuit design and simulation, Amplification, Filtering, Arduino, Raspberry Pi, IoT

Database Management

RDBMS, SQL scripting in MS Access, MySQL, Oracle and Microsoft SQL

CAD

OnShape, AutoCAD, CATIA

Web Development

HTML5, CSS3, ASP.NET MVC and Web Forms, WebAPI2, Bootstrap, jQuery, AJAX

Others

Finite state modelling (Simscale, COMSOL, Abaqus), Fuzzy Logic Tool Box, Vibration test, CAN analysis

LANGUAGE

Filipino (native), English (2nd language), German (Beginner), French (Beginner)