

Sebastien La Duca

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EDUCATION

Carnegie Mellon University, Pittsburgh, Pennsylvania, USA
B.S. in Electrical and Computer Engineering (GPA: 3.19/4.0)

May 2021

WORK EXPERIENCE

IBM - Full Stack Developer Intern

Poughkeepsie, NY

May 2019 – Aug 2019

- Secured and modernized Web Application Sphere™ server infrastructure
- Built a DevOps toolchain for automating documentation

SAP - Enterprise Readiness Academy

Newtown Square, PA

Jun 2018 – Aug 2018

- Cultivated skills in Design Thinking, AGILE development, and professional communications

Boy Scouts of America's Goose Pond Scout Reservation - Instructor

Lake Ariel, PA

Jun 2017 – Aug 2017

- Led outdoor skills instruction activities in camping, signaling, fire building, navigation, pioneering, and wilderness survival at a sleep-away camp for over 300 boys aged 11-17

SKILLS

C/C++, UNIX, Assembly, SystemVerilog, Digital Systems Architecture, Python, Data Science, Machine Learning, Java, PCB Design, T_EX, L^AT_EX, Javascript, JQuery, React, BlazeJS, NodeJS, Markdown, MATLAB, Autodesk Autocad, Autodesk Inventor, Autodesk Fusion 360, Autodesk EAGLE, Solidworks, Microsoft Word, Microsoft Excel, Microsoft PowerPoint

SOFT SKILLS

AGILE, Design Thinking, Teaching, Eager to Learn, Leadership Communications, Teamwork, Adaptability, Attention to Detail

PROJECTS

Website for Carnegie Mellon Quiz Bowl

Nov 2017 – Dec 2017

- Built a professional website for Carnegie Mellon Quiz Bowl, a student organization at CMU
- Used **JQuery, React**, and **Material Design**
- Check it out at cmuquizbowl.org

Build18 2018 - Discrete Tic-Tac-Toe

Nov 2017 – Feb 2018

- Implemented a Tic-Tac-Toe game from scratch using only MOSFET's, diodes, switches, and resistors
- Developed the design from Finite State Machine Transition State Diagram, to system architecture, down to logic gates, applying circuit-level minimization to reduce transistor count
- Won 'First Penguin' Outstanding Project Award

Capital Area Science and Engineering Fair, Brain-Computer Interfaces

Sep 2016 – Apr 2017

- Built a low-cost electroencephalogram (EEG) from scratch and tested several classification algorithms' abilities to classify human activity (out of 3 classes) based on their EEG signal
- Implemented several Bayesian **Machine Learning** algorithms using **Python, NumPy** and **Pandas**

PaupackWaves Lemelson-MIT InvenTeam

Aug 2013 – Nov 2014

- Designed and built all electrical systems for a dock-mounted lake wave actuated generator that stored energy and illuminates the dock at night
- Featured at the 2015 White House Science Fair (March 2015)
- Designed and built the **Printed Circuit Board (PCB)** for the device
- Programmed a **PIC** controller with **BASIC**

AWARDS & SCHOLARSHIPS

IBM Watson Scholar

Mar 2017

Eagle Scout

Sep 2014

HOBBIES & INTERESTS

Player on Quiz Bowl Team

- Competes in fast-paced academic knowledge competition
- Studies in History, Visual Art History, World Mythology, Geography, Poetry, Philosophy, Physics, and Mathematics

Snare Drummer in Bagpipe and Drum Band

- Performs traditional Scottish music

VOLUNTEER WORK

Outreach Coordinator for Carnegie Mellon Quiz Bowl

- Organizes and Moderates academic knowledge matches between teams of High School students

Speaker on Neurodiversity at IBM's 2018 Workshop on AI for People with Disabilities

