## **DAVID LEBLANC**

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Reno, NV

in david-leblanc-935201166

## **EXPERIENCE**

## Software Engineer IV

### **Bankers Healthcare Group (BHG)**

- Remote, FL
- Developed a back-end integration for loan servicing software
- Integrated into an event-driven Kafka based architecture for processing loan origination, placements, payments and delinquencies
- Improved the reliability and performance of the overall software process

### Senior Software Engineer

#### **Hamilton Company**

**i** January 2013 - January 2022

Reno, NV

- Designed and developed the architecture for the back-end software of the successful MLPrep liquid handling robot
- Full stack development including Angular front-end, ASP.NET core server and SQL database
- Implemented a novel camera-based labware detection and recognition system to facilitate user experience
- Collaborated with mechanical, electrical, firmware teams to deliver a quality product in a timely fashion
- Worked on various other projects including MLPrep, Nimbus ELISA robot, service software, and pipette tip inspection machine

### Graduate Research

### University of Nevada, Reno / Desert Research Institute

- **Fall 2015 Spring 2017**
- Reno, NV
- Developed a novel algorithm for dune crest-line detection from satellite images
- Collaborated with researchers to improve methods and publish findings

### Computer Vision Research Intern

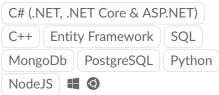
#### **Eye-Com Corporation**

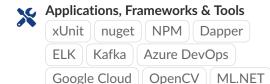
- **May 2010 November 2012**
- Reno. NV
- Developed a novel high accuracy real-time head pose estimation system
- Designed a hardware calibration pose estimation algorithm to improve head pose accuracy
- Calibrated various headset cameras using proven calibration methods
- Improved the pupil tracking algorithm to reduce jitter and increase robustness
- Worked on iris, cornea, eyelid, and eyelash detection
- Implemented various machine learning and eye gaze mapping methods
- Debugged, profiled, and optimized various algorithms in the company vision library

## **SKILLS**



## Back-end





Jenkins Docker LaTeX



## **EDUCATION**

## M.S. in Computer Science University of Nevada, Reno

- **April** 2017
- Thesis: Automated Sand Dune Crest-Line and Geomorphological Metric Computation on Planetary Surfaces

# B.S. in Computer Science University of Nevada, Reno

- December 2011
- Emphasis on Intelligent Systems (Machine Learning, Computer Vision, Robotics)
- Senior Project: Segway Robot with obstacle avoidance, collision detection, and visual environment recognition

## **LANGUAGES**

**English** French



## **PROJECTS**

## Stock Market Prediction Algorithm

Uses technical analysis and machine learning to predict which stocks to buy and sell. Implemented in .NET Core (ML.NET) with an angular web application front-end and a flutter mobile app.



### LIVEGRID (Contract)

A platform to connect musicians and performers with venues to setup events and handle payments.



### **Open Source Liquid Handling Robotic Framework**

A framework built to provide an API for liquid handling robotic tasks for laboratories.



### **Dune Crest-line Detection Algorithm**

Master Thesis project for detecting and measuring dune crest-lines from satellite images.

## **PUBLICATIONS**

D. Leblanc and S. Louis, Early Prediction of a Game Outcome in StarCraft 2, 28th International Conference on Computers and Their Applications 2013 (CATA-2013), 2013

### REFEREES

### **Prof. George Bebis**

- @ University of Nevada, Reno
- bebis@cse.unr.edu

#### Prof. Mircea Nicolescu

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