



CONTACT	<i>e-mail:</i> lukelavalva@gmail.com <i>website:</i> lukelavalva.com	<i>LinkedIn:</i> luke-lavalva <i>GitHub:</i> LuLaValva
EDUCATION	Rowan University, Glassboro NJ Bachelor of Science in Computer Science Sole recipient of the Outstanding Senior Award Member of the CS Honors Society (UPE) Bachelor of Arts in Mathematics Minor in Sociology	May 2022 GPA: 3.9
TECHNICAL KNOWLEDGE	<i>Programming Languages:</i> JavaScript/TypeScript/Node.js, C/C++, Python, Java <i>Programming Skills:</i> Machine Learning, OOP, Git/GitHub, CI/CD <i>Framework and Tools:</i> React, Angular, Atlassian/MongoDB, MySQL, Docker <i>Miscellaneous:</i> Blender/AutoCAD, Embedded Systems, Technical Writing/LATEX	
RELATED EMPLOYMENT	GiveSignUp RunSignUp <i>Full Stack Developer / Software Engineer</i> May 2021 - February 2022 Developed software for the GiveSignUp RunSignup platform and worked with a large codebase written primarily in PHP and JavaScript with a MySQL database. Constructed APIs for GiveSignUp, worked on UI/UX design, and implemented various other features. Bristol Myers Squibb at Rowan University <i>Research Contractor - DevOps & Front-end</i> September 2020 - May 2021 Built a framework to connect backend Natural Language Processing algorithms operating on patent data to a user-facing frontend. Rowan University Math Department <i>Student Researcher - ECOC Machine Learning</i> February 2019 - April 2021 Developed an optimal n-ary matrix construction that was used to improve ensemble learning with Error-Correcting Output Codes, resulting in two publications. Vericle/eSpoc <i>Front-end Development Intern</i> January 2018 - June 2018 Used TypeScript with Angular 6 to develop a user interface for the company's bug report and feature request system.	
OTHER EXPERIENCE	MindBytes <i>Math & CS Teacher</i> June 2020 - September 2021 Corey Waters @ Rowan <i>Student Teaching Internship</i> January 2020 - May 2020 Rowan CS Dept <i>Tutor / TA</i> September 2019 - December 2020 Dr. J's Window & Screen <i>Window Repair Technician</i> Summers 2018 - 2019	
PUBLICATIONS	<i>Optimal N-ary ECOC Matrices for Ensemble Classification</i> <i>Ensemble Learning using ECOC: New Classification Error Bounds</i>	SSCI 2021 IEEE ACTI 2021

EXAMPLE
PROJECTS

- TensorBeat** *MIDI music generation AI with an interactive keyboard frontend*
Collaborated with a team of software developers to web scrape over one million songs and perform feature extraction before storing them in an Atlassian database before using them to train a responsive music generator.
- Project Titan** *Automated Phone System and IM Tool For Amusement Parks*
Lead a team to design and implement a voice-based user interface for amusement park ride operators and employees to log information to a database.
- Cows, Bulls & Beyond** *Interactive academic paper analyzing code-breaking games*
Wrote an analysis of code-breaking games that includes dozens of interactive components that help to enhance understanding for readers. Available on my website.
- Nodevember 2020** *Daily challenge to create procedural designs with severe limitations*
Created 30 procedural shaders on primitive objects with Blender's Shader Nodes in response to daily prompts. Available on Twitter @LaValva Luke.

REFERENCES

- | | | |
|-------------------------|--|--|
| Bob Bickel | GiveSignUp RunSignUp | bob.bickel@runsignup.com |
| Pavithra Lakshminarayan | MindBytes | learn@mindbytes.co |
| Tom Monardo | Dr. J's Window & Screen Hospital | dr.js.inc@gmail.com |
| Hieu Duc Nguyen | Rowan Mathematics | nguyen@rowan.edu |
| Gabriella Hristescu | Rowan Computer Science | hristescu@rowan.edu |
| Sharon McCann | Rowan Sociology | mccanns@rowan.edu |