

# Nick Maleki

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## Education

### University of North Carolina at Charlotte

- Master of Science in Computer Science | 3.90/4.00 GPA | August 2019 - December 2020
- Bachelors of Science in Computer Science | 3.77/4.00 GPA | August 2017 - May 2020

## Technologies and Skills

**Programming Languages:** Python, Java, C#, JavaScript, TypeScript, Kotlin, MATLAB, Visual Basic, Arduino, SQL, LABVIEW, LISP, Octave, HTML, XML, CSS, Lua

**Tools, Frameworks, and Operating Systems:** Tensorflow, OpenCV, Android, JetBrains, Visual Studio, SOLIDWORKS, Atmel Studio, Unity, Git, SVN, Digital Signal Processing, Analog Signal Processing, .NET, VirtualBox, Docker, VMWare, React, PostgreSQL, WebGL, OpenGL, AWS, SQLite, Agile, Scrum, Windows, Ubuntu, macOS

**Certifications:** Cisco Certified Network Associate (CCNA), Adobe Premiere Pro, Microsoft Office Suite Certipoint Certified: Word, Excel, PowerPoint

## Leadership

### Co-Founder | Recursion | 2020 - Present

Leading a team of scientists to develop an infinite space on which simple rules recursively self-generate 3D cellular automata by applying the principles of cognitive science, quantum optics, computational neuroscience, n-dimensional spatial dynamics, and meta-programming. *LISP: SBCL, cl-opengl, SLY*

### President | App Ventures | 2020 - 2021

Leading and teaching 150 university students to build Android applications. Designed fast-paced courses in app development and GUI design. *Kotlin, Java, Android Studio, Adobe Creative Cloud*

### Officer | Web Dev 49 | 2020 - 2021

Leading a group of 50 university students to build web sites and web apps. *JavaScript, TypeScript, npm, React, Vue, Node.js, Firebase, Postman, Django, Flask*

## Volunteer Work

### Moderator and Vectors Team Member | Inkscape | 2020 - Present

Troubleshooting user issues and bugs in this open source project. *C++, Python, SVG 2*

### Mentor | FIRST Robotics Team 5190 | 2017 - 2019

Mentored an award winning FRC team of over 70 students on programming, electrical engineering, mechanical engineering, graphic design, and marketing. *Kotlin, Java, LABVIEW, Python, SOLIDWORKS, Autodesk Inventor, ASP, DSP, cRIO, Adobe Creative Cloud, Inkscape, GIMP*

## Work Experience

### Software Engineer and Analyst | Aquisense Technologies | 2018 - Present

Collaborated on a cross-functional team to design custom Ultraviolet research tools and equipment. While leading development of numerous product lines, I worked with over 30 universities and 40 companies including NASA JPL, KBR, Boeing, Mitsubishi, etc. Built cloud hosted version control systems for software, electrical, and mechanical teams. Migrated all customer and product data to a database and visualized this data on Grafana. Built numerous automation systems, ran data analysis, and programmed embedded devices. *Python, C#, Objective-C, Atmel, SOLIDWORKS, Altium, PostgreSQL, Grafana, PLC, AWS, DSP, ASP*

### Graphic Designer and Social Media Marketer | University of North Carolina at Charlotte | 2017-2018

Designed official UNC Charlotte graphics and maintained University social media web pages. *Adobe Suite, GIMP, Inkscape, HTML, CSS*

## Projects

### Robot Control System | 2019

Path planning, PID control, autonomous, and intelligent robot programming. *ROS, Python, ASP, DSP*

### Client-Server Chat App | 2020

Programmed TCP over UDP for learning purposes and wrote an asynchronous client-server chat app. *Wireshark, Python*

### LabJack Wrapper | 2018

Designed a custom wrapper for LabJack devices which brings high level arduino-like functions to the device. *Python, ASP, DSP*

### Honeypot Android App | Duke University Hackathon | 2019

Led a team of three software engineers to make an application built with a decentralized blockchain over bluetooth to create a message board that works without the internet. *Android Studio, Firebase, Kotlin, Java, iOS, Swift, Bluetooth, BLE*

### Machine Learning | 2020

Improved accuracy of machine learning models by up to 10% by generating virtual neurons by augmenting NASA's IPPA algorithm, which was developed to model dark matter. *Python, OpenGL, scikit-learn, numpy, pandas*

### Computer Vision Projects | 2019

Achieved the top 1% of scores on each assigned CV class project: Application scraper, eye-tracker, fourier domain processing, and an image classifier using an SVM. *MATLAB, Julia, Python*

### PearlPlotter | 2019

Designed and built physical automation devices that measure the intensity of light produced on an XY plane. Programmed a GUI to control the device settings and view data in real time. Designed a calculator and manual generator where the user can input raw sensor values, calibration curves, and light spectrums to create adjusted intensity plots, averages, and petri factors. *C#, .NET, Excel, Word, PowerQuery, Python*