



## PROFILE

# WILLY LOPEZ

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[MyWebsite](#)

## SOFTWARE ENGINEER

I am a Computer Science graduate from George Mason University. My goal is to become a full stack software engineer. I enjoy all sorts of coding, from web development, to AI/ML, to embedded programming. I am a technology enthusiast and enjoy writing about different use cases for open source technologies.

## EDUCATION

B.S. COMPUTER SCIENCE  
GEORGE MASON UNIVERSITY

### Volgenau School of Engineering, 2018-2020

- **CS-321 (Software Engineering)** Developed a cross platform application using ReactNative for the front end and NodeJS for the back end. deployed on Google cloud and used Firebase as a NoSQL database
- **SWE-432 (Web-App Development)** Developed a full stack application using ReactJS for the front end NodeJS for the back end and deployed it using AWS Serverless Amplify with a Firebase database
- **CS-310 (Data Structures and Algorithms) and CS 483 (Algorithm Design)** Implemented several projects involving fundamental algorithms and data structures in computer science. Created a Dijkstra's Algorithm visualizer using Java
- **CS-480 (Artificial Intelligence) and MATH-446(Numerical Analysis)** Implemented numerous projects ranging from data regression analysis to AI-driven autonomous agents using Jupyter, Scikit-Learn, and MATLAB
- **WillBlogs** - Created a full stack blogging website using the MERN web stack following a Routes and Controller architecture with ExpressJS
- **Covid-19 Data Model** - Forecast deaths and infection transmissions using logistic regression in Jupyter notebooks
- **Dijkstra's visualizer** - Visualize the shortest path algorithm in Java Swing
- **MasonEats** - Developed a cross platform mobile application using ReactNative, google cloud, and firebase. Following a MVC architecture

## PERSONAL PROJECTS

### Front End

- Design UI prototypes in Figma to develop front end HTML/CSS
- Built responsive client side web applications using Angular, ReactJS, and ReactNative frameworks

### Back End

- Developed server infrastructure in Node.js, Java-Servlets, and C#/.NET
- Connecting back end frameworks to databases such as MongoDB, Firebase, and Oracle DB

### Architecture and Workflow

- Developed several projects in small teams following SCRUM and Agile methodologies implementing CI/CD patterns
- Designed and implemented architectures such as Modal View Controller and Event Driven to various software applications

### Network

- Developed web-sockets and RESTful API's
- Deploy secure requests and network protocols on several applications

### CoderKids Inc. (January 2020 - current)

- Teach fundamental Python, Java, and Scratch to students utilizing Minecraft modding and other educational tools
- Teach embedded programming utilizing arduino in C/C++

## SKILL STACK



## EXPERIENCE