


# Marko Ritachka

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## EDUCATION

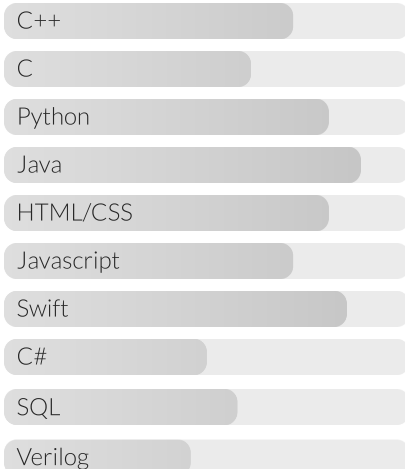
### UC San Diego

Computer Engineering  
Expected Graduation: June 2019

#### Undergraduate Courses:

- Discrete Mathematics
- Software Tools and Techniques
- Advanced Data Structures
- Intro to Computer Architecture
- Algorithm Design & Analysis
- Digital Component System Design
- Analog Design

## SKILLS



- Personable and great communicator
- Experienced with all major OSs
- Fluent in Microsoft and Adobe suites
- First Aid and CPR certified
- Fluent in English & Ukrainian
- Learning Mandarin and German

## INTERESTS

### Technology

- Arduino, Raspberry Pis, FPGAs
- Virtual and Augmented Reality
- 3D Printing and related tech
- Machine Learning
- 3D Design and CAD

### Recreation

- Piano, Violin, Guitar, & Theremin
- Surfing, Quidditch, & Gymnastics
- Camping, hiking, and exploring
- Cinema and Film History

## INTRODUCTION

Passionate computer engineering student seeking to leverage my technical and collaborative skills into a professional setting. Extensive experience working in both independent and team environments. Practical knowledge of development on both simple and complex levels. Versatile, reliable and able to learn new skills on the fly.

## WORK EXPERIENCE

### Head Software Developer | Bizepi LLC

Nov. 2015 - Jun. 2017 | La Jolla, CA

- Main developer for a start-up recently established with a partner
- App released onto the iOS App Store in September 2016

### Computer Technician | Trinity Alps Technologies

Jun. 2017 - Sep. 2017 | Weaverville, CA

- Provided local computer repair, setup, and systems management for the Trinity County area
- Also provided setup/repair for security systems and residential networks

### Shift Manager | Trinity Theatre

Jun. 2016 - Sep. 2017 | Weaverville,

- Helped re-open a movie theatre by assisting setup of projector, audio, and payment systems
- Worked in a managerial position to coordinate employees, maintain technical systems, and communicate with film distributors

### Independent Consulting and Technology Services

2011 - Present | Various Cities

- Consulted by two schools to facilitate the purchases of their first 3D printer
- Provided 3D printing and design services to local clients for drafting product prototypes
- Provided independent computer setup and repair for various clients
- Technical director at a concert theatre managing lighting and sound for plays and concerts

## PROJECTS

### Software

- **Silhouette** (Swift) - iOS app that utilizes depth data to apply custom "3D" filters to pictures
- **What's That Food?** (Java) - Android group project that logs/explores your everyday meals
- **eagle-re.com** (HTML/CSS) - A real estate website implementing local IDX databases
- **Music Viz VR** (C#) - A VR music visualizer exploring the projection of sound into a 3D space
- **markoritachka.com** (HTML/CSS/Javascript) - Personal site implementing many web frameworks
- **NickBall** (C#) - Unity group project that explores various game mechanics in VR
- **Graphic Design** (logos, sites, apparel, ads, events) for various clubs, groups, and clients

### Hardware

- A custom 3D printer built from scratch and utilizing custom Marlin firmware
- A printer that prints pancakes in a monochrome form of an uploaded image
- A Harry Potter sorting hat with facial expressions & voice controlled wirelessly with computer vision
- Arduino based laser tag system in a wand form factor designed for scalability and modularity
- A custom PC VR headset designed to be affordable and compatible with many applications
- Replica Iron Man suit with custom HUD and Arduino controlled sensors, lights, and motors.
- Open-source electric skateboard design powered with an Arduino and a VESC controller