Marko Ritachka

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INTRODUCTION

Passionate computer science student seeking to immerse 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

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 clients and events for product prototyping
- Provided independent computer setup and repair for various clients
- Techinal director at a concert theatre managing lighting and sound for plays and concerts

Shift Manager | Trinity Theatre
Jun. 2016 - Sep. 2017 | Weaverville, CA
- 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

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

PROJECTS

Apps
- **Bizepi** (Swift/Firebase) - iOS app that lets users discover and contact local freelance services
- **What's That Food?** (Java) - Android group project that logs/explores your everyday meals
- **Silhouetto** (Swift) - iOS app that utilizes depth data to apply custom "3D" filters to pictures
- **VR Mini Games** (C#/Unity) - Including a spatial music visualizer and VR physics demonstration

Websites
- **markoritachka.com** (HTML/CSS/Javascript) - Personal site utilizing various web frameworks
- **eagle-re.com** (HTML/CSS/Javascript) - A real estate website implementing local IDX databases
- **quidditch.ucsd.edu** (CSS/Wordpress) - Custom branding and graphic design for a student org
- **Other Tools** (Node.JS, Firebase, & more) utilizing media queries, databases, and animations

Electronics
- **Custom Electric Longboard** powered with an Arduino and a VESC controller
- **Animatronic Harry Potter Sorting Hat**. Movement & voice controlled wirelessly with computer vision
- **Replica Iron Man Suit** with custom HUD and Arduino controlled sensors, lights, and motors.
- **Arduino-based Laser Tag** system in a wand form factor designed for scalability and modularity
- **Custom PC VR Headset** designed to be affordable and compatible with many applications

3D Printing
- **Custom 3D Printer** built from scratch with a modular design & utilizing custom Marlin firmware
- **Pancake Printer** that extrudes and bakes batter in a greyscale form of an inputted image
- **Full-color CYMK(W) Extruder** based on hot-end filament-fusion and custom Gcode post-processing

EDUCATION

UC San Diego
B.S. - Computer Science
Expected Graduation: June 2019

Undergraduate Courses:
- Advanced Data Structures
- Software Tools and Techniques
- Algorithm Design & Analysis
- Intro to Computer Architecture
- Principles of Operating Systems
- Digital Component System Design
- Theory of Computation
- Intro to Computer Vision
- Analog Systems Design
- Engineering Psychology

SKILLS

General Use
Python • Java • C • C++ • Swift

Web Development
HTML • CSS • Javascript
Angular • Bootstrap • Firebase

Composure
Git • Adobe Creative Suite • LaTeX
Various CAD/3D Printing Software

Systems
Windows/MacOS/Various Linux
iOS/Android • Arduino • Raspberry Pi

Languages
Fluent in English & Ukrainian
(Learning Mandarin & German)

Other
First Aid and CPR/AED certified

INTERESTS

Technology
- Arduino, Raspberry Pis, FPGAs
- Virtual/Augmented Reality
- 3D CAD and 3D Printing
- Machine Learning
- Creating/Modding Video Games

Recreation
- Aerial Cinematography
- Piano, Violin, Guitar, Theremin
- Surfing, Quidditch, Gymnastics
- Camping, Hiking
- Cinema and Film History