# Ambareesh (Amby) Balaji

University of Waterloo • 1B Software Engineering

# **TECHNICAL SKILLS**

Experienced: C/C++, Python, JavaScript, jQuery, HTML, CSS,

Git, Linux and Unix, Bash, Zsh

Familiar: Node.js, React.js, Firebase, Java, MySQL

# **PROJECTS**

#### handle **①**

React Native, Node.js, Firebase

Jan 2017

- Codeveloped a mobile app that lets users request other users to shop for them and deliver the goods home and vice-versa
- Helps university students manage the time they spend on grocery shopping and/or earn extra money in their free time
- Worked on implementing login screens, the maps API, and the algorithm that matches requesting users to the delivering users

# Sign Language Translator •

Python2.7, Leap Motion Orion SDK

Nov 2016

- Built a translator that detects American Sign Language using a Leap Motion sensor and converts it to text, and then to speech using Google Text to Speech
- Helps hearing and speech impaired people better communicate with others
- Implemented gesture detection features to detect various signs
- Won the First Place and the "Most Innovative Hack" award in Electric City Hacks 2016, Trent University, Peterborough

# HyperSpace (7)

C++, OpenGL, Arduino Wire, OrbitOled

Nov 2016

- Codeveloped a shoot-em-up game in OpenGL with the Tiva Microcontroller (Launchpad) with the Orbit BoosterPack as the controller
- Worked on the controller and its synchronization with the host
- Implemented accelerometer and gyroscope for motion control

# **ASCIInator** •

Python3.5, python-pillow

Sep 2016

- Wrote a script that converts images to ASCII art and colored pixel art in plain text to display pictures on the terminal
- Implemented the pixel art features and the command line arguments that control resolution and detail

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#### **ACADEMICS**

# **University of Waterloo**

Waterloo, ON

Bachelor of Software Engineering co-op (BSE) Sep 2016–Apr 2021

• 95.45% (4.0 GPA) in 1A (fall 2016)

# **AWARDS**

# National Scholarship \$12,000

Faculty of Mathematics, University of Waterloo

• One out of 12 Canada-wide

# Distinction, Top 10%

Euclid Contest, University of Waterloo

• Score: 78/100

# **Fellowship**

Young Scientist Incentive Plan (KVPY)

- One out of 350, rank 172 India-wide
- Direct admission to Indian Institute of Science, Bengaluru, India

# Scholarship

National Talent Search Examination (NTSE)

• One out of 773, rank 180 India-wide

# **ACTIVITIES**

- Volunteer at the CS4U day, 2016 (computer science outreach event for students in grades 9 to 12 by the University of Waterloo)
- Volunteer at the Earth Sciences Museum, University of Waterloo

# **HOBBIES AND INTERESTS**

Taekwondo Black Belt • Rubik's Cube •

Twisty Puzzles  $\bullet$  Chess  $\bullet$  Badminton  $\bullet$ 

Squash • Tennis • Swimming