

Joshua Antonson

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Education	Master of Science in Electrical and Computer Engineering , Carnegie Mellon University <i>May 2016</i> Bachelor of Science in Electrical and Computer Engineering , Carnegie Mellon University <i>May 2015</i> Minor in Computer Science Overall GPA: 3.65/4.00
Skills	Programming Languages/Technologies: Java, Python, C, JavaScript, HTML, CSS, JQuery Ajax, Jersey, Node.JS, MySQL, MongoDB
Work Experience	Image, Video, Multimedia (18-798) , Carnegie Mellon University <i>Spring 2015 – Fall 2015</i> Teaching Assistant <ul style="list-style-type: none">Assisted in defining and managing lab assignments and projects for exploration of video computing algorithms including: object detection and tracking, motion analysis, 3D display.Led student exploration and documentation of using Emotiv EEG headset to record and analyze user brainwaves while watching videos. Financial Intelligence Unit , Koror, Palau <i>Summer 2015</i> Consultant <ul style="list-style-type: none">Built and deployed an Access database that enabled much more efficient search and analysis of financial reports than the previous method of paper reporting.Enabled electronic reporting between various financial institutions and the FIU through secure electronic transfer of reports in documented CSV file format.Trained staff of the FIU to use Access database and to efficiently import data into database. Nike , Beaverton, Oregon <i>Summer 2014</i> Consumer Digital Technology Intern (Platform Team) <ul style="list-style-type: none">Built prototype project to demonstrate end-to-end architecture using Netflix OSS and Cassandra database and the deployment process on AWS.Built API for a Nike+ app to enable efficient storage and retrieval of user information.
Projects	HealthMate , Building Reliable Distributed Systems <i>Fall 2015</i> <ul style="list-style-type: none">As part of a 3-member team, currently building a Personal Health Record aggregation website that automates the task of contacting, collecting, and storing a patient's medical history across hospitals/providers.Designed to be fault-tolerant to message loss and OS/process crashes through passive replication, fault detection, and graceful recovery to a consistent system state. PaceMate , Special Topics in Embedded Systems: Sports Technology <i>Spring 2015 – Fall 2015</i> <ul style="list-style-type: none">Led team through development process of building a visual and responsive pacing system for athletes to improve performance in workouts and competition.By outfitting a running track with a system of Arduino Yuns, IR sensors, and LEDs, our system intuitively lights up corresponding to a target pace set by the user through an Android app.System automatically records accurate user splits at key intervals and displays user workout history through a coaching and athlete dashboard website. RideThru , Embedded Systems Design Capstone <i>Spring 2015</i> <ul style="list-style-type: none">As part of a team, proposed and built a virtual reality experience for stationary bikes by equipping sensors to measure turning, speed, and fan control connected to a custom PCB.Integrated PCB communication with Unity3D and an Oculus Rift, so the user can bike through virtual terrains and play video games using the stationary bike as a controller, creating a fully immersive and responsive workout experience. SleepApp , Networks in the Real World <i>Spring 2015</i> <ul style="list-style-type: none">Developed an Android application that collects accelerometer data during sleep and accurately detects a range of user movements.Trained a classifier using distributed user data to learn a user's sleep patterns and provide accurate predictions about their future sleep patterns.
Activities	Varsity Men's Track and Field, Carnegie Mellon University: 2012 – present Varsity Men's Cross Country, Carnegie Mellon University: 2011 - present