Gera Groshev

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Education

University of California, Berkeley | B.S. EECS | Dec 2017 **Cumulative GPA:** 3.6

Cosumnes River College | A.S. Electrical/Computer Engineering/Mathematics | May 2015

Technologies: **Python, Java, C,** C++, Swift, MIPS, Scheme, SQL, HTML, CSS, jQuery, OpenMP, SSE, Vuforia, LabVIEW

Relevant Courses

- Operating Systems
- Embedded Systems
- Artificial Intelligence
- Machine Structures
- Discrete Mathematics and Probability Theory
- Database Systems
- Data Structures
- Signals and Systems
- Designing Information Devices and Systems I&II
- IEEE Micromouse Robotics

Experience

Software Engineering Intern – Qualcomm – San Diego, CA May 2017 – Aug 2017

- Project 1: Unity Snapdragon VR app showing colored spinning rings, which was used for testing
- Project 2: Worked with Tango/VR team to display textures created by their API via WiFi display. This involved reading OpenGL textures and communicating with WiFi display code included as part of the Android build

Teaching Assistant for iOS Development – UC Berkeley Jan 2017 - May 2017

- Acted as a project mentor and taught concepts and best practices for the Swift language
- Coordinated and aided in running iOS development labs, held office hours, and graded assignments

Principle Course Designer – Sacramento, CA May 2016 - Aug 2016

- Co-founded a college engineering club that challenges students by signing them up for competitions
- Organized and wrote material and mini-projects to introduce C, Arduino, and electrical circuits

Team Lead for SMUD Solar Regatta – Sacramento, CA Nov 2014 – May 2015

- **Achieved Awards: Judge's Choice, Best Technical, Best Design, Most Artistic, Best Video**
- Led the electrical and controls design team in the design of a solar powered boat for a solar regatta competition
- Designed an autonomous sun tracking device and algorithm. Used Arduino microcontroller, motors, and sensors

Select Projects

Pet Detective – TreeHacks 2017 – Stanford – Google Cloud Vision, Python, HTML, CSS, JavaScript Feb 2017

- **1st Place Winner, Best Use of Google App Engine**
- Pet Detective is a chatbot service and analytics platform that uses computer vision to help locate lost pets

Air Doodle – Gesture Recognition Toolkit (GRT) for Deep Learning, Python, C++ Oct 2016 – Dec 2016

- Glove device classified gestures as characters. Raspberry Pi, Arduino, and LED matrix to display the characters
- Used 9 axis sensor, sensor fusion library, and open source gesture recognition toolkit for ML to train on samples

RNDR – Cal Hacks 3.0 - UC Berkeley – Swift, Objective-C, Vuforia, Unity, Google Maps API Nov 2016

- RNDR is an AR social network where the augmented world is one big social media post
- Implemented the iOS front end using Swift and helped integrate the Unity3D Vuforia scene with Swift

Voice Controlled Robotic Vehicle – iPython, MSP430 Microcontroller Mar 2016 – May 2016

- Implemented a robotic car capable of recognizing and reacting to natural language commands
- Implemented speech recognition using SVD and PCA linear algebra techniques

Text Editor – Java, JavaFX API Feb 2016 – Mar 2016

- Implemented a combination of data structures for efficient text buffering, rendering, cursor movements, insertion and deletion, undo and redo operations, and scrolling. Used JavaFX for GUI, positioning text, and file processing

Accomplishments

- **TreeHacks 2017:** 1st Place Winner, Best Use of Google App Engine
- **SMUD Solar Regatta:** Judge's Choice, Best Technical, Best Design, Most Artistic, Best Video
- **Solar Powered Trash Compactor:** $5000 grant, Excellence in Engineering, Best Energy Award, Top 3 in Engineering
- **MTHS Industrial Technology Departmental Award**
- **MTHS Design and Technology Academy Scholarship**
- **MESA Scholarship**
- **Best Video Game**
- **President's Volunteer Service Award**