Alexander P. Chu

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https://github.com/Arctangent1759

Education

University of California, Berkeley   Berkeley, CA
Electrical Engineering and Computer Science (EECS) Major   June 2016
- UC GPA: 4.00

El Segundo High School   El Segundo, CA
Graduating in June of 2012   June 2012
- GPA: 4.63

Experience

Northrop Grumman Corporation   El Segundo, CA
Software Engineering HIP Intern   February 2012 – June 2012
Worked with Software Engineering team on mission control software
- Analyzed Delaunay Triangulation Algorithm for corner cases
- Participating in the Airplane Design and Remote Control Demo course

Mattel Corporation   El Segundo, CA
Global Information Technology Intern   November 2011 – January 2012
- Implemented PrePlan Database and user interface
- Designed an Electronic Project Management Plus logo

Projects

Scheme Interpreter (Python)
- Designed and implemented an interpreter for the Scheme Language
- Extended the Scheme language to support Dynamical Scoping

LifeOST (Android)
- GPS-based Android music player designed to allow users to map songs to locations
- Developed using the Phonegap, Android, and Bootstrap frameworks

ÜberPong (HTML5/Javascript)
- Web-based 3D Pong redux using the Leap Motion controller as the player interface
- Developed using HTML5, Three.js, and the Leap Motion developer API

Activities

Hackers@Berkeley   UC Berkeley
Hackathon Participant   August 2012-Present
Produced functional web applications within a 24-hour timeframe
- Projects available at https://github.com/Arctangent1759

FIRST Robotics Team 1759   El Segundo High School
Co-President   April 2011 – April 2012
Directed team operations through the 2012 FRC robotics competition season.
- Led Swerve Drive mobility system development initiative
- Finalized CAD models for machining
- Developed 2012 financial plan and build schedule
- Redefined team roles and command structure

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Lead Programmer   September 2009 – June 2012

Developed real time robot control software on the Compact RIO platform.

- Developed team LabVIEW proficiency
- Perfected robot target tracking and image processing algorithms
- Integrated sensor data and actuation in PID motion control
- Transferred excess robot processing tasks from cRIO to a remote workstation
- Instructed new programmers for the 2013 team

Additional information

- Programming Languages: Javascript, HTML5, Python, Java, LabVIEW, Visual Basic
- API Proficiencies: Node.js, JQuery, Bootstrap, Android, Phonegap, Leap, Three.js, BeautifulSoup
- Other Software Proficiencies: vim, GitHub, Eclipse, Netbeans, Microsoft Visual Studio, GIMP, Autodesk Inventor
- Languages: English, Spanish, Spoken Cantonese