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

Workplace 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 National Instruments 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
- Development Environments: vim, GitHub, Eclipse, Netbeans, Microsoft Visual Studio
- Other Software Proficiencies: GIMP, Autodesk Inventor
- Languages: English, Spanish, Spoken Cantonese