CHET CORCOS

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Los Angeles CA, 90007
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EDUCATION

University of Southern California   **Los Angeles, CA**
Phd in Computer Science   *Fall 2013 - Present*
Cumulative GPA: 3.5
Robotic Embedded Systems Lab (RESL)

Harvey Mudd College   **Claremont, CA**
Bachelor of Science in Engineering   *Graduated May 2013*
Cumulative GPA: 3.7
Dean's List: Spring 2010 – Spring 2012
Tau Beta Pi Engineering Honor Society Member
Norin Memorial Scholarship Recipient for *Communications Engineering and Related Fields* (SP 2012)

Relevant Coursework:

Analysis of Algorithms | Probabilistic Graphical Models | Machine Learning | Mobile Robotics
Control Systems Engineering | Microprocessor Design and Application | Communication Systems

Publications:

· **Towards Interactive Object Recognition** (Karol Hausman, Chet Corcos, Joerg Mueller, Fei Sha, Gaurav S. Sukhatme), In IROS 2014 3rd Workshop on Robots in Clutter: Perception and Interaction in Clutter, 2014.

PROFESSIONAL EXPERIENCE

SpaceX - *Avionics Intern*   Hawthorne, CA - *Summer 2013*
· Designed pan-tilt control system for custom laser scanning infrared range finder (LiDAR).
· Designed calibration and simulation rigs in CAD along with engineering drawings for machining and 3D printing.

One Aura - *Software Developer and Bio-signal Analyst*   Tustin, CA - *Summer 2012*
· Developed an iPhone App involving Bluetooth communication and GPS tracking.
· Used frequency domain tools for heart beat detection from an infrared sensor.

Corcos Tech - *Software Developer*   *Fall 2011 - Present*
· Websites, Mobile apps, CAD, 3D printing, Data visualization

RESEARCH EXPERIENCE

USC Robotic Embedded Systems Lab - *Phd Student*   Los Angeles, CA - *Fall 2013 - Present*
· Smoothing and Mapping (SAM) simulations with heterogeneous multi-robot teams
· Probabilistic graphical model for robotic interactive object recognition

UC Davis Center for Neuroscience - *Intern*   Davis, CA - *Summer 2011*
· Wrote MATLAB scripts using EEGLab toolbox for analyzing inter-cranial brain signals from rats and humans.

PROJECT EXPERIENCE

Eaton Aerospace Engineering Clinic   Harvey Mudd College, CA - *Fall 2012*
· Designed modular, nonlinear control systems for various types of hydraulic aircraft nose-wheel steering systems.
· Implemented sliding mode and adaptive control.

Electric Truck   Fair Oaks, CA - *Summer 2008*
· Built an electric truck using the body, chassis and manual transmission of a 1999 S-10 with a blown engine.
· Installed power brakes, power steering, welded battery trays, designed 12V and 120V circuits.

High Power Rockets   Harvey Mudd College , CA - *Fall 2010*
· Built and flew high-powered rockets (I-motors) with custom sensor payload.
· Designed and built a protoboard with a data-logger, 3-directional gyroscopes, and 3-directional accelerometers.
· Developed a 6 DOF model in MATLAB for determining the rocket's 3D position and orientation throughout flight.

OTHER PROJECTS:

D3 Network Visualization | RSA Encryption Demo | Password Rhythm Authentication | OpenCV Eye Tracking
MIPS multi-cycle processor implementation | One-handed Keyboard | Wide-band Antenna design | Classic car restoration

SKILLS

Programming:

Python | JavaScript (Meteor.js, Node.js, d3.js) | MATLAB | C | C++
CAD (NX 7.5, OpenSCAD) | Objective-C | System Verilog | Prolog | Racket | Java