CHET CORCOS

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21 St. James Park
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.

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