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Megan Chang

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EDUCATION

University of California, Santa Barbara - Mechanical Engineering, B.S./M.S.
Udacity - Full-Stack, Nanodegree

June 2015 / 2017
June 2017

SKILLS

- Computer: Matlab, Python, SQL, JSON, API, Flask, SQLAlchemy, Java, Solidworks, HTML, Bootstrap
- Languages: English, Spanish

PROJECTS

HeyPal - www.heygal.fun

June 2017

- Designed a data-driven social network that suggests fun activities to do in your local area - users can add pals, send invites, and add activities
- Designed, built, and implemented my vision for HeyPal using Python Flask web development, PSQL database queries, and a Linux server host
- Integrated Google Maps and Foursquare APIs to feature activity markers on a map with access to a venue's website, phone, and photos (if available)

UCSB Master's Thesis (available on my LinkedIn)

April 2017

- Developed a higher order accurate MATLAB code to efficiently simulate complicated dendritic crystal growth (the Stefan problem) on irregular domains
- Used the level-set method paired with the Ghost-Fluid method to achieve superior interface tracking
- Implemented third-order extrapolation and Weighted Essentially Non-Oscillatory (WENO) schemes to handle advection accurately

EXPERIENCE

UCSB Engineering Teaching Assistant, Class Section Leader

Jan 2016 – Jun 2017

- Created and delivered lecture to section classes (20-25 students) each week
- Directed weekly office hours to provide extra one-on-one help to students

Advanced Vision Science (AVS), Head Intern – Process Engineering

Jun 2014 – Oct 2014

- Led engineering studies to improve manufacturing process for AVS intraocular lenses: improved yield by over 10%, reduced operator time, and decreased costs
- Served as lead engineer during emergency production shut down and successfully brought lens yield back up and into production
- Served as engineering/operations liaison to improve productivity by influencing the work culture and bridging the gap between R&D, management, and operations

UCSB Orientation, Academic Advisor

Mar 2014 – Aug 2014

- Served as academic advisor, student ambassador, and campus guide
- Worked in environment demanding painstaking detail, with fellow advisors and minimal supervision to orientate over 8,000 new students and their parents to UCSB
- Delivered presentations to students, partook in panels for parents, gave tours of UCSB and Isla Vista

HONORS

- Won **"Most Marketable"** for Junior Design Project: A table made of square grids that can be adjusted to different configurations (like Tetris shapes) for people in tight living spaces
- Received two **UCSB Technical Writing Excellence Awards** (one for "Dodonpa" Wikipedia article which receives 2,000 views monthly <https://en.wikipedia.org/wiki/Dodonpa>)
- President of Geek Week Committee (managed organization and fundraising of 2nd annual UCSB College of Engineering competition involving obstacle courses, scavenger hunt, kickball etc.)