

SAMUEL B. GOLDBERG

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NUTSHELL

An F.E./E.I.T.-certified mechanical engineer with a track record of hard work, accomplishment, and creativity, who is seeking a mechanical design engineer position.

SKILL SET

- **Solid/3D Modeling** with *SolidWorks*, including master modeling
- **Finite Element Analysis** with *ANSYS Workbench* and *SolidWorks*
- **Programming** with *MATLAB*, *LabView*, Java, JavaScript, and HTML
- **Fabrication and Machining** including hands-on experience with lathes, milling, drilling, grinding, water-jetting, laser etching, heating and bending metal, and forming carbon fiber
- **Design and Testing of Human Interfaces**
- **Skilled Communication**, including writing, public speaking, and presentation preparation

DEGREES

B.S.M.E., Mechanical Engineering (3.5 GPA Combined)

University of Washington | *Seattle, WA* / June 2012

- Emphasis on mechanical design and renewable/alternative energy.
- First- and second-year classes completed at North Seattle Community College.
- Washington Fundamentals of Engineering Certification #32525 (December 2012).

B.S., Communication in the Life Sciences (3.4 GPA)

Cornell University | *Ithaca, NY* / May 1999

ENGINEERING

Mechanical Engineer (Intern)

Synapse Product Development | *Seattle, WA* / Aug. 2012–March 2013

- Engineered and tested components and systems for high-volume consumer products.
- Devised a chemical dosing system for a multi-national NGO's third-world sanitation device.
- Designed, administered, and reported multivariable experiments to validate engineering design decisions about magnetism, pressure resistance, and more for a major European energy firm.
- Contributed to dozens of brain storming and ideation sessions across several project lines.
- Attended an intensive three-day plastics molding seminar and applied knowledge to client work.
- Liaised with vendors, requested quotes, and researched and purchased off-the-shelf solutions.
- Took a lead role in fostering a culture of inclusion for new employees and interns.

University of Washington Formula Motorsports (Formula SAE)

University of Washington | *Seattle, WA* / Sept. 2011–June 2012

- Designed and analyzed throttle and brake pedals using *SolidWorks* and *ANSYS Workbench*.
- Wrote a multi-hundred-line *MATLAB* script to analyze how different geometrical configurations affected internal forces and the driver's mechanical advantage over the brakes.
- Manufactured pedals from aluminum, brass, and steel using CNC mills and lathes, and aided in fabrication, assembly, and repair of many other parts and systems.
- Voted team's "Technical MVP" for dedicated response to changing design needs.
- Helped the team place fourth overall (including first in the engineering design category), and 14th overall respectively at international design competitions in Nebraska and Germany.

Relevant Engineering Classwork and Accomplishments

- Designed a device to prevent commercial fisherman from being swept away by wind, waves, and currents when evacuating to life rafts (senior project).
- Wrote a multi-hundred-line *MATLAB* script to perform an analysis of the cost and effectiveness of candidate waste heat-reclamation systems for use in an industrial laboratory.
- Won balsa car chassis design contest with a unique strategy and a 995:1 strength-to-weight ratio.
- Specialized courses: *Energy Harvesting* (conservation and non-traditional energy capture), *Energy Conversion* (nuclear, coal, and natural gas power), *Alternative Energy* (solar power and bio-energy), *Tech-based Entrepreneurship* (ideation, innovation, and business planning).

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RECENT
EMPLOYMENT

Exhibit Content Developer/Coordinator

Pacific Science Center | *Seattle, WA* / *Oct. 2006–Aug. 2010*

- Conceptualized the \$7 million, 6,000 sq. ft. exhibition *Professor Wellbody's Academy of Health & Wellness*, developed its 30 interactive devices, and wrote its fundraising prospectus.
- Created a 3,000 sq. ft. segment of the hominid exhibition *Lucy's Legacy*, including 15 interactive devices and accompanying copy about evolution, fossils, and paleoanthropology.
- Developed 30 interactive devices and wrote copy for the bilingual, interactive traveling exhibitions *Harvesting Science/Cosechando la Ciencia* and *Washington State Science at Work*.

Associate Editor

Air & Space/Smithsonian Magazine | *Washington, DC* / *Sept. 2002–May 2005*

- Assigned and edited articles for this bimonthly, 300,000-circulation magazine.
- Proposed stories and oversaw the *Reviews and Previews* sections.
- Wrote and researched articles, sidebars, and product reviews and aided with layouts.

HOW 'BOUT THAT

Writing | Voted Cornell Daily Sun “Columnist of the Year” for my weekly humor work.

Cooking | Traveled to New Zealand for a four-month culinary technique and wines program.

Mindless | Spent a summer internship selecting Jerry Springer clips for E! Network’s *Talk Soup*.

Hot Dogs | Turned to engineering after designing and building a collapsible solar hot dog cooker.

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