

PAUL D. SPOONER

PROFESSIONAL ENGINEER

CAMARILLO, CA, 93010, USA
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C: (805) 910-5814



FORMAL EDUCATION

B.S., Engineering – Mechanical (Mathematics Minor)

Graduated: May, 2006 **LeTourneau University**, Longview, TX
GPA: 3.62 / 4.00, Magna Cum Laude

The Engineering course at LU requires 137 semester hours and is ABET accredited. For the senior project; Lead a 5 member engineering team to win 2nd place in the SAE Aero Design competition.

SKILLS

Computer:

C++, Python, Java
Solidworks
AutoCAD
MS Office
Inventor
Blender
Matlab
ANSYS
CATIA
Revit

Design:

Hardware –
Aircraft Assembly Automation
Part Handling Automation
Injection Molding
Diebonders
Software -
CAD, Web-development
3D Modeling and Animation
Conventional and Procedural
System – N-axis automation, Sheet metal, Piping, and Duct

Fabrication:

Machine Tools -
lathe (wood and metal), mill, press, shear, mag-drill, saw (band, chop, table), grinder, buffing wheel
Rapid Prototype -
Sintered (plastic, metal), extruded filament, lost wax
Construction -
stone and block masonry, thin-wall ferro-cement, truss-frame, tab-and-slot welded, excavation, wood frame
Welding -
wire-feed (mig), stick, tig (Tungsten torch gas sheilded arc)

EXPERIENCE

Mechanical Engineer

October 2016 – Present

Gausman & Moore, Santa Clarita, CA
HVAC and Plumbing design for both new and existing construction.

Mechanical Designer

October 2015 –

October 2016; and Sporadically in 2000
Budlong and Associates, Camarillo, CA
HVAC and Plumbing design for both new and existing construction.

3D Modeling, Animation, and Game Design

October 2008 - Present
Self Employed, Camarillo, CA & Seattle, WA

My portfolio can be seen at: <http://www.peripheralarmor.com/commission/>

- Indie film “Project London”. 3D Modeling (buildings, scenes, and vehicles), texturing, concept art, web-design, and animation. <http://youtu.be/eXPor2B59mA>
- Programmed a Python script for parametric tree generation in Minecraft, and was commissioned to implement it in Java. Project completed in three days, and the client was very satisfied. <http://www.minecraft.net/credits.jsp>
<http://www.peripheralarmor.com/minecraft/minecraftscriptphotojournal.html>

Engineer

March 2012 – October 2015

Electroimpact, Mukilteo, WA

Cradle to grave engineer for aircraft automation. Gathered specifications, quoted, designed, purchased, assembled, tested, shipped, installed, and supported Electroimpact products for our customers. Extensive documentation, communication, and personal initiative required.

- Leader (3 members) for Flex Track storage and handling. Design, FEA analysis, purchase, fab, assembly, shipping, and install.
- Engineer on a team (20 members) that designed, fabricated, and delivered jigs for military aircraft assembly and drilling. Met exacting project documentation requirements and accelerated schedule.
- Support Engineer in Nagoya, Japan (solo assignment). Provided long-term on-site support for automated aircraft tooling working with both customer and business partners.

- Tool Engineer. Close clearance stress-critical offset rivet anvil design for multi-ton riveting machines.

Design Engineer May 2010 – March 2012

Semiconductor Equipment Corp., Moorpark, CA

Designed improvements for semiconductor manufacturing equipment, especially semi-automatic diebonders. Updated drawings and specifications. Employed 3d and 2d modeling and drafting for design and analysis. Employed an integrated parts and design control system, and a lean manufacturing outlook.

- Reconstructed revision information for mis-filed drawings through intelligent document comparison.
- Developed experimental soldering techniques for wafer tester repair using 8W 532nm laser. Customer pleased with results.
- Developed sub-micron optical Vernier scale plates for machine calibration and alignment.

Data Entry & Programming January 2010 – December 2011

Soho Prospecting, Camarillo, CA

Data entry and automated data entry code tool development. Extensive use of web tools for retailer maintenance and bug reporting.

- Populated a Joomla website with affiliate vendor information.
- Image manipulation for logo reduction and formatting.

Engineer May 2006 - October 2008

Meissner Filtration Products Inc., Camarillo, CA

Project Management, design, fabrication, and quality control. Designed, fabricated, and oversaw the testing of both automated and manual clean room machinery and tools. Wrote documentation and operating procedures for equipment and processes. Extensive experience with TIG welding and machining stainless steel.

- Designer for In-house web handling machinery used to rinse, coat, and dry delicate filtration media. Shared responsibility with engineering lead. Aided in design, purchasing, fabrication, and install.
- Designer in charge of a refit for prototype injection molding equipment for use in a clean room. Personally designed, fabricated, and tested a prototype mold cavity to solve heat exchange, part release, and smoke generation problems. The prototype passed all specification criteria, and the project was under budget.
- Solo project to develop hand-operated clean room tools for pleat pack handling and filter assembly. Three successive generations of prototypes were required to produce a solution. The new tools greatly reduced operator error and increased productivity.
- Project lead fitting a conveyor fed drying oven with automated loading and unloading robotics. Personally designed, fabricated, purchased components, assembled, and tested all major mechanical systems. Adoption delayed due to failure in specification phase.

Engineering Intern Summer 2005

Argon ST, Camarillo, CA

Maintained and drafted parts and part revisions in AutoCAD. Applied experience with wiring diagrams and wiring assembly, both for electrical, electronic, and RF systems. Participated in miscellaneous manufacturing, assembly, and part fabrication work, mostly in aluminium.

Engineering Intern Summer 2004

Naval Facilities Engineering Service Center, Port Hueneme, CA

Performed various tasks with engineers including maintenance of robotic systems, data gathering, construction, and use of AutoCAD for drawing organization.

- Converted de-classified drawings to AutoCAD. Re-organized project drawing tree to facilitate bidding.
- Designed, fabricated, and tested gate barrier methods for emergency access denial.
- Assisted in repair of Port Security Barriers at Point Loma naval base, San Diego, CA, USA.

AWARDS AND RECOGNITION

- PE (California #38358) EIT (Texas #42099)
- Second place, AeroDesign West Coast 2006 (Engineering lead of a 5 person team, LeTourneau)
- LeTourneau University Presidential Scholarship and Dean's list
- Level Six Certificate of Merit from Music Teachers Association of America, for classical piano
- First place, piano performance at the Bach festival (Ventura County)
- Best of Show in year 2000 Teen Digital Annual Movie Making Competition (2 person team)
- Best of Show in Ventura County Fair 4-H Dog Show with Australian Shepherd (1995)

CERTIFICATES AND CLEARANCES

- Driver's License, Car and motorcycle, held and exercised at various times in California, Washington, Minnesota, Texas, and Japan.
- "Secret" level security clearance from the USA (expired 2014)
- CPR and First Aid certified in the state of Washington.
- Private pilot in training, 30 flight hours.
- Open water SCUBA diver, 4 dive hours.

PERSONALITY PROFILE (BIG FIVE)

I'm a pretty standard male personality, but highly creative.

- High in Openness (especially to ideas): I have a deep need to be creative, interact with new ideas, and consider unconventional options. For me, "impossible" is nonsense. IQ of 147.
- High in Conscientiousness (especially Orderliness): I like things well organized, and clear goals.
- Medium-Low in Extraversion: I'm not thrilled to meet new people or attend meetings. I'd rather work on my own, though having a few colleagues I can rely on is comforting.
- Low in Agreeableness: Other people's feelings aren't important to me. I know what I want, and whether or not that aligns with others' desires is irrelevant.
- Low in Neuroticism: I don't tend to worry about things going wrong.

REFERENCES PROVIDED UPON REQUEST

Or you could just Google me. I don't mind.

SKILL OVERVIEW, AND CONTACT INFORMATION REGARDING:

PAUL D. SPOONER

PROFESSIONAL MECHANICAL ENGINEER

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I WORKED ON MINECRAFT

Can-do (what I like)

I specialize in designing, fabricating, and perfecting tools to make your life easier. I'm equally eager to develop hardware and software, virtual models, automation, infrastructure, and hand tools.

Flexible (where I'm comfortable)

I can also do cad, 3d print design, animation, machining, testing, documentation, assembly, janitorial, or just sitting in meetings to offer feedback. I feel comfortable at any scale or scope, from micro-electronics to international infrastructure. I've completed house-sized robots that put together aircraft, and performance-critical code for making trees in Minecraft. Your technical challenges are not going to startle or worry me.

Principled (what I won't touch)

I show up, I don't steal, and I won't lie. Sounds good, right? Sadly, these qualities can cause problems for a lot of my potential clients. If you need someone to flatter you or your clients, look elsewhere. If you need someone to protect intellectual property, I won't be able to help you. If you need someone to pretend to have schedule difficulties so that everyone can be happy about missing a deadline, count me out. No politics, no diplomacy. I'm here to tell it straight and get the job done.

Proven Skills

Below are summaries of a few of the capabilities I've developed, in addition to the general communication and administrative ones that would be too numerous to list.

Computer:

Python, Java, C++
Solidworks
AutoCAD
MS Office
Inventor
Blender
Matlab
ANSYS
Google
CATIA
Revit

Design:

Hardware –
Aircraft Assembly Automation
Part Handling Automation
Injection Molding
Diebonders
Software -
CAD, Web-development
3D Modeling and Animation
Conventional and Procedural
System – N-axis automation, Sheet
metal, Piping, and Duct

Fabrication:

Machine Tools -
lathe (wood and metal), mill, press, shear, mag-drill, saw
(band, chop, table), grinder, buffing wheel
Rapid Prototype -
Sintered (plastic, metal), extruded filament, lost wax cast
Construction -
stone and block masonry, thin-wall ferro-cement,
truss-frame, tab-and-slot plate, excavation, wood frame
Welding -
wire-feed (mig), stick, tig (Tungsten torch gas shielded arc)

Freelance Prices

On Site: \$115/hr

I come to your site in person. I can bring my own tools, or use yours.

Remote: \$85/hr

I work over the internet. I can use my own software, or remote into your system.

Contract: Negotiated

If you have a specific goal, deadline, or project, I can give you a bid for the whole job.