

Alexander J. Vincent-Hill

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EXPERIENCE

Process Engineer

2015 - present

HP Inc. (Corvallis, OR)

- Assured quality of half of all HP Inc. inkjet printer MEMS devices made with a unique silicon etch process
- Guaranteed the efficacy and performance of a new \$3.2MM wet-bench production tool with chemical analysis, statistical comparison tests of downstream defect and yield data, and design of experiments
- Presented internal silicon micro-machining manufacturing methods to engineering and technical staff
- Created and optimized a new etch process for next-generation HP Inc. inkjet printing manufacture

Chemistry Instructor

2015

Adventures in Learning, Oregon State (Corvallis, OR)

- Planned and taught an introductory chemistry curriculum for a diverse group of high-achieving 4th-6th graders
- Developed and delivered lab activities and demonstrations to engage students with science concepts

Print Systems Engineer

2014

Hewlett Packard Co. (Corvallis, OR)

- Investigated air generation in printer ink by designing a 3D-printed module to measure volume creation as a function of surface temperature and fluid flow-rate to understand customer product failures as an intern
- Created a model to predict product failures currently used to focus resources on reducing high-risk product use

Graphic Designer

2013 - present

Woot.com

- Illustrated and contracted two t-shirt designs currently for sale online with ~3,000 total sales worldwide

Undergraduate Researcher

2013 - 2014

Lawrence Berkeley National Lab (Berkeley, CA)

- Explored chemical bonding by exciting ethylene molecules with a high-harmonic laser process
- Designed and installed a low-pressure beamline filter, constructed and aligned a laser compressor, received specialized safety training, and operated and maintained a 40W Class 4 research femptolaser for ~500 hours

EDUCATION

University of California, Berkeley, B.S. Chemistry

2014

- Instructed students with disabilities and STEM undergraduates in general and nuclear chemistry topics
- Served as Scholarship Chair for Nu Chapter of Phi Kappa Tau Fraternity, Fall 2013
- Studied Spanish, art history, and Latin-American economies at Universidad de Granada, Spain, Fall 2014

SKILLS

Mastery

- AutoCAD/SolidWorks
- JMP statistical analysis
- Adobe Creative Suite (PS, Ai)
- Microsoft Office
- Windows OS
- Chemical lab procedure
 - Hazard safety training
 - Titration, vacuum filtration, stoichiometry, recrystallization, synthesis

Proficiency

- Spanish language
- COMSOL CFD modeling
- JavaScript, HTML, CSS
- Python
- Linux (Ubuntu) OS
- Git, Vim, Blender
- Analytical chemistry
 - UV/VIS spectrophotometry
 - GC, HPLC, AES, MS, NMR, NAA, α/γ spectroscopy

INTERESTS

Web development, coding
Soccer, Brazilian Jiu Jitsu, skiing
Travel (20 countries, 5 continents)
Hiking, camping, mountaineering
Photography, digital painting
Volunteering (United Way)
Electric guitar, violin

Personal website: avincenthill.github.io
LinkedIn: www.linkedin.com/in/avincenthill