

Joshua M. Hochman

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User-Centered Engineer

Innovative thinker with 11+ years' experience as an industrial engineer in manufacturing plants. Currently transitioning to a specialization in UX design / human factors engineering. Special interests include continuous improvement, lean manufacturing, and training content development.

SKILLS

Software: NX Unigraphics, InSpec (metrology software), PTC Windchill, SAP, inventory management systems (Gigatrak, Maximo); Microsoft Word, Excel, PowerPoint, Publisher, and Access

Programming: Basic knowledge of C++ and VBA; some experience with HTML, CSS, and JavaScript

Language: Intermediate skills in Spanish (5 years of study); intermittently self-teaching French

EMPLOYMENT

Principal Industrial Engineer – Northrop Grumman (Mission Systems) – Sykesville, MD 2021-Present

Strategic leader for the Sykesville iCard Program. Developing advanced tool and inventory control solutions to support visual management and standardization practices across multiple manufacturing areas in support of the US Navy.

Reliability/Manufacturing Engineer – Mason-Grey / Johnson & Johnson / Jabil – Horseheads, NY 2018-2021

Lead engineer for supporting the Preventative Maintenance (PM) program for the Elmira medical device manufacturing facility

- Wrote comprehensive PM plans for 200+ machine assets to reduce preventable failures and achieve 98.5% machine uptime
- Primary point of contact in the plant for scoping, purchasing, and inventorying maintenance spare parts; managed \$65k+ in spend
- Authored, co-executed, and reviewed 10 IQ protocols to relocate wire EDMs, Swiss lathes, and milling centers
- Managed a team of 5 interns to develop process models for 30+ machines to estimate setup, labor, and cycle times for 1000+ part numbers
- Authored and executed first article inspections to validate and transfer 20 SKUs from one machining center to another
- Earned three site Quality and Safety Champion awards for identifying risks and completing improvement projects
- Successfully pitched a \$60k+ capital equipment purchase to site leadership and justified with an extensive review of historical failure data

Manufacturing Engineer – Corning Incorporated, CISC – Big Flats, NY 2016-2017

Daily production startup activities around the coating process for Valor Glass in an early-stage manufacturing environment

- Supported mechanical installation of new coating equipment and process development for new products
- Designed a work cell, standard work process, and macro-powered database for pre-screening of defects on incoming rough product
- Managed a team responsible for creating a new library of visual work instructions (VWIs); developed ≈15 new VWIs and other forms

Process Improvement Engineer – Amphenol Aerospace – Sidney, NY 2015-2016

Primary owner of vision systems used for automated quality checks of production parts

- *Automated Optical Inspection (AOI) – MicroVu Vertex 311HC / InSpec Software Package*

Overhauled the inspection process for heat sinks developed for the JSF program. Conducted RCA to identify sources of programming failures. Mastered use of camera/touch probe to develop improved CMM-style programs. Worked with toolmakers to design a new fixture system. Invented a method to inspect 53 geometrically distinct parts on one machine. Capital project with estimated \$50,000 cost savings.

Continuous Improvement Engineer – GlaxoSmithKline (via ZeroChaos) – East Durham, NY 2013-2015

Intern with the Operational Excellence department of GSK's Oak Hill site; Implemented Lean Six Sigma/5S for the production of Aquafresh and Sensodyne toothpastes; Fast-paced projects required interfacing with multiple departments, site leaders, and cross-functional teams

- Part of a team that developed operator standard work scripts for packaging line changeovers (30% process time reduction)
- Directly observed and photographed mechanical processes to create multiple visual work instruction documents (training tool)
- Designed a matrix and checklist to streamline packaging line pre-changeover preparedness (SMED – Single Minute Exchange of Die)
- Maintained downtime data used in the calculation of packaging line OEE and generation of waterfall graphs
- Redesigned the site leadership team gemba process (created a performance board and updated gemba scripts)

Undergraduate Teaching Assistant – Engineering Graphics and CAD, RPI

2012-2013

Hands-on instructor; co-led the course with other TA's; Worked one-on-one with students to help them troubleshoot design of 3D models

Tutor – Poughkeepsie, NY

2007-2015

Math/science tutor for private clients ages 15-50; Self-developed teaching method targeting each student's logical thought process

ADDITIONAL RELEVANT EXPERIENCE

Database Designer / Developer for Samuel E. Koszer, M.D. – Poughkeepsie, NY

Designed and implemented tables, forms, and reports to effectively organize data on 3,550 epilepsy patients in MS Access

EDUCATION

University of Maryland (UMD) – College Park, MD

M.S. Human-Computer Interaction (expected graduation May 2025)

Rensselaer Polytechnic Institute (RPI) – Troy, NY

B.S. Chemical Engineering, Psychology minor

CERTIFICATIONS

Google UX Design Certificate Program

- Foundations of User Experience (UX) Design
- Start the UX Design Process: Empathize, Define, and Ideate
- Build Wireframes and Low-Fidelity Prototypes
- Conduct UX Research and Test Early Concepts

Fundamentals of GD&T ASME Y14.5 v2009 – Applied Geometrics, Inc. (AGI)

Lean Six Sigma Green Belt – Binghamton University Watson School of Engineering – Binghamton, NY