Brandon J. Chen

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EDUCATION

Northwestern University, BS Design and Manufacturing Engineering / 2013-2017
Relevant courses: Energy Sustainability, Human-Centered Product Design, Intellectual Property & Innovation, Interdisciplinary Design Projects, Operations Research

WORK EXPERIENCE

Engineer / December 2018-Present
Rail Surveyors and Engineers, Inc., Belmont, CA
- Assist senior engineers with project research, planning, data processing, report preparation and engineering drawing production
- Projects include Santa Clara VTA's light rail SCADA, Metrolink's rail asset management system, and Metrolink's Los Angeles-Glendale-Burbank and Redlands track capacity upgrades

Design Engineer Intern / June-September 2016
Filtran (Filtration Group), Des Plaines, IL
- Decreased development time of new products by 18%, and improved concepts using computer-modeled tests
- Reduced machining and setup time of fixtures for performance qualification tests and vibration tests by 60%
- ISO-9000, ISO-14001, TS-16949 certified

Project Design Intern / June-September 2015
Segal Design Institute, Evanston, IL
- Co-lead of floor outlet cover replacement: Removed tripping hazards; managed sourcing and prototyping
- Machinist and electronic assembler for infant warming pad, presented at University of Ibadan medical conference

Ad Production Artist / September 2013-June 2017
The Daily Northwestern, Evanston, IL
- Set up the newspaper ad layout and formatted media on a daily deadline, often filling in for supervisor
- Revised manual to speed up training and eliminate dependence on in-office expertise

DESIGN PROJECTS

Manufacturing Engineering Capstone / March-June 2017
Optimize wrench assembly process in a factory environment
- Designed riveter fixtures, conducted root cause analyses, and optimized batch process time from 1 unit per 10 minutes to 7 units per 30 minutes

"Bolt" Breadfruit Peeler Design Capstone / January-July 2016
Motorized peeler that improves breadfruit-to-flour processing for Jamaican farmers
- Increased per-person throughput to 500+ per shift, reduced training time, and improved peeling safety

SKILLS

Product Design: Human-computer interaction, industrial design, life-cycle analysis, mechanical engineering, project management, UX research, web design; C++, CSS, HTML, JS
Computer-Aided Design: AutoCAD, Civil 3D, Creo Pro/E, Siemens NX, SolidWorks, Sketchup
Software: Adobe Illustrator, InDesign, Photoshop, CorelDraw; ArcGIS, Microsoft Office, Minitab

Machine Shop: 3D printing, injection molding, milling, casting, sheet metal working
Manufacturing & Statistics: Design of experiments, GD&T, lean manufacturing, materials selection

Writing: Creative writing, journey mapping, technical writing