

# WENHAO WU

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GitHub Portfolio: <https://wenhaowu27.github.io/> | LinkedIn Profile: <https://www.linkedin.com/in/wenhaowu01/>

## SUMMARY

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20+ years new product development experiences. Technical competency in all aspect of engineering, hardware, software, manufacturing, quality, production, and operation. Always expanding knowledge and experiences by keeping abreast of evolving trend, techniques, and technologies to streamline efficiency. Effective at combining creativity and problem solving. 20+ years demonstrated experiences turning idea into reality. Equipped with skills needed to create products that bring joy to the lives of the users

## SKILLS & ABILITIES

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Language:	Javascript, JQuery, Node.js, ReactJS
Application:	HTML, CSS, AJAX, MySQL, Mongoose MonGoDB , Express, Sequelize
CAD:	SolidWorks, SDRC I-DEAS, Auto CAD
Project management	Scope/Schedule definition, Risk mitigation, CM Management, NPI project planning
Manufacturing:	Lean Manufacturing, Operation, Six Sigma, Quality Assurance, Agile document control

## SOFTWARE PROJECTS

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Non-Random Password Generator	<ul style="list-style-type: none"><li>• A customized phrase changing password generator – Self-made app</li><li>• Javascript, function of char mask, CSS</li><li>• <a href="https://wenhaowu27.github.io/password_generator/">https://wenhaowu27.github.io/password_generator/</a></li></ul>
Bulls & Cows	<ul style="list-style-type: none"><li>• Old paper &amp; pencil game I used to play while in high school – Self-made app</li><li>• Javascript, function of CSS to assign shape, function of duplicate/repeated number and accept number only</li><li>• <a href="https://wenhaowu27.github.io/4digit_game/">https://wenhaowu27.github.io/4digit_game/</a></li></ul>
One Community	<ul style="list-style-type: none"><li>• A social site app for volunteer and help wanted - Group project, I was responsible to write all API routing and testing</li><li>• Javascript, Node.js, MySQL, express, Sequelize, and OOM</li><li>• <a href="https://one-community.herokuapp.com/">https://one-community.herokuapp.com/</a></li></ul>
Wonder Kitch	<ul style="list-style-type: none"><li>• A recipes apps to convert scanned receipt into searchable item and use it to search recipe - Group Project. Responsible for backend on Mongoose MonGoDB</li><li>• Mongo/Mongoose, ReactJS</li><li>• <a href="https://wonderktich.herokuapp.com/login">https://wonderktich.herokuapp.com/login</a></li></ul>
Trivia Game	<ul style="list-style-type: none"><li>• A trivia game using open trivia game API for their database</li><li>• Ajax, Constructor, Dropdown Manu, Switch Case</li><li>• <a href="https://wenhaowu27.github.io/TriviaGame/">https://wenhaowu27.github.io/TriviaGame/</a></li></ul>

## EXPERIENCE

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7/2017-7/2019	Mechanical Engineer, <i>Human, Inc. Through Nytec, Inc.</i> <ul style="list-style-type: none"><li>• Build proof of concepts to prove function, manufacturability, and robustness.</li></ul>
2/2014-7/2017	Senior Mechanical Engineer, Principal, <i>Viavi Solutions</i> <ul style="list-style-type: none"><li>• Design zoom lenses integrated with LCD and camera board. Provide optical/mechanical design and performance specification</li><li>• Responsible for mechanical design, fit, function and documentation</li></ul>

- Provide detailed design and 2D documentation of all parts and assemblies
  - Create design with 3D printed prototype to proof concept
  - Designated to work with Asia contract manufacturing from prototype to production
- 4/2012-2/2014      Lead Project Engineer, Principal, *Honeywell*
- Oversee multiple missile guiding system projects across all phases of development
  - Work as part of interdisciplinary team to achieve successful phase gate exit goal
  - Implement and maintain development matrix best practice
  - Working under Advance Manufacturing Engineering Group to lead new product development process from its inception to production.
  - Drive Design To Cost, develop Cost Take Out Roadmap(s)
  - Drive DFX (Design For Manufacturing, Assembly, Service, Test, Lean)
  - Predict design for manufacturability, yield, test, and drive change utilizing the AME enabling tool suite (Yield, Complexity, and Design For Manufacturability (DFM) prediction models)
  - Program/Project Focal for the Program transition to Production
- 8/2008-4/2012      Engineering Manager, Manufacturing Operation, *WatchGuard Technologies, Inc.*
- Managing a engineering team of 5 members, components engineer, compliance engineer, and software engineer on manufacturing and testing issue to ensure product meet specification and achieve expected quality
  - Managing creation of manufacturing testing automation for server hardware that includes hard drive, memory, system controllers and other peripherals
  - Managing production activity in accordance with sales forecast and inventory control i.e. MRP, production, logistic, and inventory
  - Facilitate and drive cost negotiation of all components section such as encryption chipset (Freescale), Wi-Fi (Atheros), fiber optic components (transceiver, receiver, and transmitter), PCBA, as well as final assembly (COGS)
  - Managing RMA lab for product identify failure mode, refurbishing, and shipping back to contract manufacturer for repair
  - Preparation of and adherence to annual budget plans, inclusive of staffing levels, expense planning & CAPEX spending necessary to achieve approved projects and programs.
  - Travel to Taiwan for manufacturing builds
- 4/2007-7/2008      Engineering Manager, *Micronics*
- Supervising group of engineer and technician to develop and manufacture MicroFluidics lab card for bio testing
  - Solved multiple 2 year old quality issues by change manufacturing equipment part design as well as reexam part quality
- 5/2006-4/2007      Business Program Manager, *Foxlink International*
- Managing Microsoft PC hardware account for mouse, key board, Xbox controller, and webcam from RFQ to EOL of product
- 4/2004-5/2005      Senior Mechanical Engineer(contract), *Aerojet*
- Solved rocket propellant manufacturing issue with new design
  - Design/development fire suppression system using solid propellant for police vehicle
- 9/2000-4/2004      Senior Mechanical Engineer (Contract), *Cisco Systems, Inc.*
- Started the project with 2 fellow engineer but sole responsible for completed design and development of CSR-2 router systems to meet NEBS compliance
  - Produce handmade prototype to demonstrate design concept in visual. Develop a complex routing system for fiber optic ribbon assembly
  - Lead Line card development group in customize project for varies telecommunication (South Bell and AT&T) companies

- 7/1998-9/2000      Senior Project Engineer, *The Robbins Group*
  - Managing cutter development project with Michigan Technological University Research center for tunnel boring machine
- 10/1997-7/1998      Senior Mechanical Engineer, *Matsushita Television Company (Panasonic)*
  - Introduce 3D CAD into engineering department
  - Lead engineer for complete 1999 product line
  - Work with industrial designer and manufacturing engineering to ensure DFX
- 8/1996-10/1997      Lead Mechanical Engineer, *Sims Sports, Inc.*
  - Started project from artist hand sketch and turn into real product
  - Nominated and awarded by Snowboard Magazine as “The Binding”
  - Awarded 3 patents by U.S. Patent Office
  - Lead engineer to design, development and testing snowboard equipment, snowboard and binding system
- 9/1991-8/1993      Mechanical Engineer Manager, *EQUUS, Inc.*
  - Lead automobile instruments development from mechanical to electrical speedometer/tachometer
  - Solved 30 years old manufacturing issue with design improvement
  - Lead project to international customer to ensure product meet client’s expectation
  - Lead design team to develop instrument panel for UPS delivery truck

## EDUCATION

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- 9/2019-11/2019      Certificate, Seattle, *University of Washington Coding Boot Camp Program*  
A 24-week intensive program focused on gaining technical programming skills in HTML5, CSS3, Javascript, JQuery, Bootstrap, Firebase, Node Js, MySQL, MongoDB, Express, Handelbars.js & ReactJS.
- 1/2005-3/2006      MBA emphasis in Project Management , Bellevue, *City University of Seattle*
- 9/1985-10/1988      MSME, Boston, *Northeastern University*
- 9/1978-7/1982      BSME, Taiwan, *National Taipei Institutes of Technology*

## PATENTS

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Patents: Awarded United States patent 6113114, 5971407 and 5967542 as co-inventor

## CERTIFICATES

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- Green Belt Design for Six Sigma (11/2012)
- Global Supply Chain Management Certificate Program University of Washington, Seattle, Washington (3/2011)
- Network Essential Bellevue Community College, Bellevue, Washington (4/1999)
- Certified C Programming University of Washington, Seattle, Washington (9/1996)
- Certified HVAC program University of Washington, Seattle, Washington (5/1995)