

Akash Agarwal

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PROFESSIONAL SUMMARY

Skilled Mechanical Engineer with 4 years of experience in mechanical engineering, project management and strategy consulting. Product development projects include industrial construction systems, manufacturing equipment, military devices, and medical instruments from design through fabrication, optimization, and manufacturing-implementation. Adept at 3D CAD modeling (SolidWorks, AutoCAD), FEA/CFD analyses, machine-shop manufacturing and GD&T.

EXPERIENCE

DATUM3D, INC.

Watertown, MA

Mechanical Design Engineer

2018-present

- Turnkey product development firm specializing in design for manufacture & assembly
- Developed mechanical designs for products ranging from medical devices to electromechanical military systems and industrial construction robots
- Performed product market research, 3D computer aided design (CAD), FEA/CFD, machine-shop fabrication and created GD&T manufacturing drawings for production implementation
- Leveraged FEA tools to conduct thermal, fluid flow and structural analyses for design optimization and verification
- Created, fostered and strengthened business relationships with clients through client intake, scope of work definition & estimation, proposal development, sales & marketing, and product lifecycle management from concept through delivery
- Developed and managed execution of project plans including definition of resource requirements, milestones, and timelines
- Served as primary point of contact for clients and stakeholders during projects including proactive risk management, communication and coordination of dependencies, expectation management and delivery/communication of final project materials

POWERADVOCATE, A VERISK COMPANY

Boston, MA

Manager, Client Services

2018

Associate, Client Services

2016-2018

- Consultancy working with Utility and Oil & Gas sector clients to identify and realize multi-million-dollar cost savings via supply-chain optimization and category management
- Performed data analysis on complex information sets to facilitate strategic execution targeting improved market-performance including management of client-supplier relationships
- Drove projects to conclusion working with internal and external stakeholders to ensure deliverables were met within time and budget; regularly led deliverable meetings with senior leadership teams and project stakeholders
- Led and collaborated with cross-department business units including engineering, suppliers, data scientists, legal and finance to drive strategic execution
- Trained customers on proprietary company software and earned promotion for leadership, teamwork and analytical capability

CASTOR VENTURES

Cambridge, MA

Venture Fellow

2017-2020

- Performed pro-bono venture work for a Cambridge-based MIT alumni VC fund
- Conducted research to determine market viability, financial viability, leadership team experience, risk identification and KPI's for potential investments
- Responsibilities included deal flow development and due diligence analyses including technology and market research in addition to sales, outreach and marketing
- Evaluated product-market fit of companies which required industry knowledge and end-user/customer understanding

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SENSE

Intern - Product Designer

Cambridge, MA

Summer 2014

- Startup automating and optimizing home energy usage through analysis of power consumption data from commonly used household appliances
- Developed system to non-intrusively monitor water & gas flow rate using analog-digital conversion and C++; actively monitored and processed waveforms through Python and Audacity
- Designed Python interface to remotely interact with Philips Hue light bulb via WiFi

2U, INC.

Intern - Web and Budget Analytics

New Carrollton, MD

Summer 2013

- In-depth analysis to inform funding allocation strategy and improved underperforming pages through incorporation of best-practices as informed by web analytics
- Leveraged EXCEL and web-analytics tools including WebSEO Toolkit, Google Analytics and Google Keyword; regularly interfaced with senior leadership to communicate results

UNIVERSIDAD CARLOS, III

Intern - Process Simulation

Madrid, Spain

Summer 2015

- Simulated vehicle-pedestrian impacts to compare vehicle homologation for pedestrian safety between USA and Europe
- Employed LS-Dyna to perform analysis and identify best design practices from major car manufacturers

NEW ENGLAND SPORTS ONLINE

Sole Owner and Developer of NewEnglandSportsOnline.com

Website

2005-2012

- Created, maintained, wrote for and monetized the website; achieved Alexa Ranking under 250,000
- Served as a syndicated writer for Bleacher Report while reporting on the Boston Celtics, Boston Red Sox & New England Patriots

EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

B.S. in Mechanical Engineering

Cambridge, MA

2012-2016

- Relevant Course Experience: Product Engineering Process, Product Design Theory, Dynamics & Controls, Design & Manufacturing, Precision Machine Design, Programming, Fluid Mechanics, Electronics, Engineering Structures & Materials, Organizational Structures, Spanish, Finance Theory and Corporate Financial Accounting
- Graduated Weston High School (2012) with High Honor Roll and was top Weston scorer in American Math Competition (12)

SKILLS, LEADERSHIP & INTERESTS

SKILLS

- SolidWorks, AutoCAD, ANSYS, LS-DYNA, EXCEL, Python, MATLAB, Tableau, Java, Spanish, Hubspot
- DFMA, CAD, FEA, CFD, Rapid Prototyping, CNC Lathe & Mill, 3D Printing and Laser Cutting, & Micro-Controllers

LEADERSHIP & INTERESTS

- Tutored and mentored at-risk youth through Tutors for All and Camp Kesem MIT (2010-2016)
- Head Chef and Director of Athletics for Phi Sigma Kappa (Omicron Chapter, MIT; 2013-2016)
- Co-president of Asian Student Union (WHS, 2012)
- Soccer, basketball, skiing, film, food and travel