

# Gowtham Kuntumalla

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## EDUCATION

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- **University of Illinois at Urbana-Champaign** **Champaign, USA**  
*Master of Science in Mechanical Engineering. GPA: 3.9/4.0* August 2018 – May 2020
- **Indian Institute of Technology-Bombay** **Mumbai, India**  
*Bachelor of Technology. Major in Mechanical Engineering, Minor in Computer Science. Top 5%* Aug 2014 – July 2018

## SKILLS

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- **Programming :** Python, C/C++, Linux Shell, SQL, MATLAB, HTML,  $\LaTeX$
- **Software:** SolidWorks, ANSYS Mechanical, AutoCAD, MS Office, JMP (Design of Experiments)
- **Misc.:** Product Management, Team Leadership, Rapid Prototyping, Six Sigma (Green Belt), Data Analytics, Investing

## PROFESSIONAL EXPERIENCE

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- **Uber Technologies Inc.** **San Francisco, USA**  
*Engineering Intern, New Mobility Division – Software, Data Analytics & Business Modelling* May – August 2019
  - **P1:** Wrote software for the Internet of Things (IoT) device on JUMP vehicles to process Bluetooth low energy (BLE) signals from sensors on e-vehicles. *Languages used: C++, Python, Embedded Shell Script*
  - **P2:** Wrote SQL queries to establish specifications for GPS accuracy in the IoT device
  - **P3:** Designed experiments, electronics and data collection platform for a project on characterisation of vehicle brakes
  - **P4:** Proposed a new operations model to improve unit economics with potential improvements of \$60 million
- **Washington University in St.Louis** **St.Louis, USA**  
*Summer Research Intern, Department of Energy and Chemical Engineering – Scientific Computing* May – July 2017
  - Undertook comprehensive literature review on fractals, aggregation processes and wrote a protocol for conducting computer simulations on high performance computing (HPC) cluster. *Languages used: C++ , Bash*
  - Analysed effects of change in defining parameters like volume fraction on kinetics of the sol to gel transition
- **Teaching Assistant** **Urbana & Mumbai**  
*UIUC & IIT Bombay, ranked as excellent in Spring 2019* Feb 2017 – May 2019
  - Teaching Assistant for the courses: Heat Transfer Lab, Statics, Engineering Mechanics and Differential Equations
- **Techno-Managerial Role** **Mumbai, India**  
*Technical Councillor, Student Council of Hostel 4, IITB – Elected post, Led a team of 4* April 2016 – Mar 2017
  - Played the instrumental lead role in achieving the coveted **1st/16** position in intra-college annual general championship
  - Awarded Color and Special Mention for significant contribution to the development of hostel culture

## ACADEMIC PROJECTS

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- **Metal Polymer Hybrid Heat Exchanger System** **Aug, 2018 – April 2020**  
*Adviser: Prof.Sanjiv Sinha, UIUC. Funded by DOE, US Govt. - Design and Manufacturing*
  - Conceptualised the design stage and spearheading the execution of manufacturing plan of action
  - **Kuntumalla G et al.**, Joining techniques for novel metal polymer hybrid heat exchangers, proceedings of IMECE 2019, ASME, vol 2, 10621 - *accepted*
  - **Co-author**, Materials-to-device design of hybrid metal-polymer heat exchanger tubes for low temperature waste heat recovery, IJHMT 2019, 143 (2019): 118497
- **Particle Image Velocimetry (PIV)** **April – June 2016**  
*Programming Project, Guide: Prof.Amit Agrawal, IIT Bombay - Scientific Computing*
  - Implemented a computer code on C++ to perform the 2D digital evaluation of flow velocity using FFT routine of Cross Correlation technique
- **Mechanical Team Member, PRATHAM** **Jan – Oct 2016**  
*Student Satellite Team, IIT Bombay - Nano-Satellite Mechanical Analysis*
  - Analyzed and verified (modal,static structural) integrity of satellite components under various dynamic which the satellite may experience during operation in orbit