Michael Tucker

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EDUCATION

STANFORD UNIVERSITY
MS in Mechanical Engineering
Expected June 2019 | Stanford, CA
Focus in Design and Manufacturing
GPA: 3.88

BS in Mechanical Engineering
Minor in Computer Science
Grad. June 2018 | Stanford, CA
Graduated with Distinction
Phi Beta Kappa Honor Society
Tau Beta Pi Honor Society
GPA: 3.94

PRINCETON DAY SCHOOL
Grad. June 2014 | Princeton, NJ
Cum Laude

COURSEWORK

UNDERGRADUATE
Statics
Dynamics
Controls
Fluid Mechanics
Heat Transfer
Manufacturing
Product Design
Statistics
Electronics
Computer Systems
Artificial Intelligence
Databases

GRADUATE
Computer Aided Product Creation
Manufacturing Systems
Vehicle Dynamics

SKILLS

FABRICATION
CNC • Turning • Milling • Woodworking
Welding (MIG, TIG, Oxy-Acetylene)

DESIGN
CATIA • SolidWorks • OnShape
HSMWorks

ELECTRONICS
Soldering • Arduino • Raspberry Pi
High Voltage Training

PROGRAMMING
C • C++ • C# • Java • Python • Matlab
Swift (iOS) • LaTeX • SQL

EXPERIENCE

PLENTY
Mechanical Engineering Intern
June 2018 – Sept. 2018 | South San Francisco, CA
- Planned and designed automated production line cells from scratch
- Specced and programmed industrial 6-DOF Fanuc robots (R-2000iC/270F)
- Designed, manufactured, integrated 5m long end of arm tooling for robots
- Managed integrators to design and develop custom conveyance mechanisms

TESLA
Battery Engineering Intern
June 2017 – Sept. 2017 | Palo Alto, CA and Sparks, NV
- Designed and optimized Model 3 battery pack parts in CATIA
- Designed components to aid Model 3 battery pack automation line
- Collaborated with suppliers from around the world
- Prototyped and tested various part designs

Powertrain Quality Engineering Intern
June 2016 – Sept. 2016 | Fremont, CA
- Executed experiments to stress test various drivetrain components.
- Designed, built, and programmed coolant flow control systems.
- Developed applications and databases to track thermal testing.
- Automated data analyses of dynamometer performance.

CENTER FOR DESIGN RESEARCH
Autonomous Vehicle Interaction Researcher
June 2015 – Jan. 2016 | Stanford, CA
- Stanford University research sponsored by Google, Renault.
- Developed driving style iPhone app to track, compare driving styles.
- Validated FACET facial tracking/emotion capture software.

RAM'S HEAD THEATRICAL SOCIETY
Board Member & Technical Director
Sept 2014 – May 2017 | Stanford, CA
- Helped manage the organization, orchestrate three large theatrical productions, manage and grow a large endowment.
- Developed technology for LED video wall, lighting and set automation.
- Designed lighting or set for seven shows at Stanford.

PROJECTS

For full portfolio and media, visit stanford.edu/~mictuc

DYNAMIC DRIVER'S SEAT | ME 113 Capstone Project
Spring 2018 | Stanford, CA
- Winner of the ME Department's 2018 Fuch's Award.
- Designed and fabricated dynamically controlled driver's seat.
- Specced, wired, coded stepper motor, transmission, and controller.
- Used four bar linkages to lean driver into turns.

CORONA: DYNAMIC LAMP | ME 318 Project
Winter 2018 | Stanford, CA
- Designed dynamically folding lamp design in SolidWorks.
- Used CNC router to machine buck, vacuum formed styrene shells.
- Wired electronics.