

William (Billy) Plummer

will.plummer98@gmail.com | [LinkedIn](#) | [Website](#) | **US Permanent Resident**, British Citizen | SF-based

Experience:

Mytos Bio | Mechanical Engineer | London, UK | Jan 24 – Nov 24 | [Website](#)

- Hardware lead for **scaled-deployment & DVT of iDEM Single flagship automated cell manufacturing platform** – drove progress from early production builds through first international installations & field support
- **Co-led extensive firefighting efforts** involving RCA, triage, and **total-resolution of diverse electromechanical failures**; outcomes spanning patches, formal redesigns, QI SOPs, novel tooling, and better response practices
- **Designed & executed new processes for rapid scaling**: SOP dev, pre-compliance/spec validation, reliability testing, DFM revs, installation/logistical procedures; compressed commissioning timelines by >60%
- **Shipped novel HW features from blank sheet**: vapor-H₂O₂ decontamination, HW UX upgrades, flat-pack structures for system stacking, anti-fungal material changes – *many more* fully conceptualised for later rollout

Matician, Inc. | Mechanical Design Engineer | Mountain View, CA | Aug 21 – July 23 | [Website](#)

- **Sole DRI for cleaning-head subsystem** for flagship autonomous CV/AI home cleaning robot; created an original mechatronic architecture from (virtually) **blank-sheet through first high-volume production runs**
- Extensively used **3DP/rapid prototyping & custom-designed equipment** to test performance, reliability, sensors at various scales. Findings leveraged to create highly successful soft, then hard production designs
- Created **MCU/DAQ instrumentation & analytics tools** to build statistical/physics models for driving decisions
- Wrote & deployed Python/Rust scripts to collect sensor data, then **implement prototype firmware and robot behavioural features for live diagnostics & situation avoidance**, including some patented market-firsts
- **Created, released & sustained >110 externally manufactured components** in collaboration with suppliers/CMS across the US & Asia; closely involved at all stages: initial outreach to hard tooling. Majority plastic IM parts
- **Closely involved with design-adjacent processes & decision making**: compliance, supply chain development, user-testing, project scoping/planning, reviews, demos, hiring. Typical *broad exposure* of startup environment

Lucid Motors | Mechanical Engineer, HV Mech. | Newark, CA | July 20 – Aug 21 | [Website](#) | [Press](#)

- **Lead mechanical DRI for novel 250kW Formula E racing inverter**, taken through concept, modelling, sourcing & validation, with components spanning IM plastic, formed metal, machined, PCBAs, harnesses
- **Overhauled initial tendered design** with material efficiency improvements & reshaping of core layout, resulting in 17% weight loss, 61% higher power density, lower part count & simpler serviceability
- Proactively **sought out & collaborated with CMS, Tier 1s, & prototype vendors** to validate DfM, continuously manage quality & handle deviations for tens of parts with volumes from 00's to 0000's for *Air Sedan*
- Created **virtual models for optimisations**, tolerance stack-ups, HV-chain safety analyses, assembly processes
- **Developed manufacturing/testing tools, WIs/SOPs, servicing routines**, and extensive design documentation

Skills:

Hard: Hand & shop tooling | FDM/SLA/DLS Printing | Soldering & PCB fab | Machining & CAM | DAQ tooling |

Lab instrumentation | Thermal/environmental simulators | Metrology devices | HazChem handling

Design: Solidworks/PDM (native) | Onshape/Fusion360/CATIA | Structural FEA | KiCAD | Slicers | Reliasoft

Soft: Python | C/C++ (for MCUs) | MATLAB/Simulink | LabVIEW | ROS | Git/Copilot | Notion

Design Specialities: Injection Molding | RP/3DP | Mechatronics/controls | R&D| CAD | GD&T (ASME Y14.5)

Education & Accolades:

Georgia Institute of Technology | Atlanta, GA | 2016–2020

- **BS Mechanical Engineering**, Automation & Robotic Systems concentration | 3.94 (overall) 4.00 (major)
- Stamps President's Scholar | **Premier full-ride merit scholarship** with <0.25% acceptance rate
- Internships: **Service Engineering III intern** | Cummins Diesel Engines | Columbus IN | Summer 2018
- Georgia Tech Off-Road BAJA SAE team roles held: **Chief Engineer**, Manufacturing Lead, DAQ Lead

Imperial College/RCA| Innovation Design Engineering (IDE) MS/MA | 2023 – dropped for better things!

Projects and [More:](#)

GT Capstone Project with Rheem Inc. | 2020 | created novel patented water tank leak handling device

Maker Projects | Just for fun | ~2012–present

- Custom furniture/lighting in wood, plastic, metal and concrete | Bean-to-bar chocolate maker | Digital espresso machine | Robotic bartender | GOx rocket motors | Kitchen utensils | Auto fish feeder...