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Nicolas Hite

SKILLS

Languages

Expert
Python
Dart
Java

Proficient
C#
C++
JavaScript / Node JS
TypeScript

Application

Flutter
Angular / AngularDart
Guice
Protobuf
gRPC

Infrastructure

Bazel
GCS
Kubernetes
Linux

Robotics

Bionics / Prosthetic Design
Mechatronics
3D Printing
Machine Learning
Computer Vision
ROS
CAD / FEA

HONORS

Google ACX Citizenship Award
Won three times for infrastructure support

JSC Director's Innovation Team Award
Presented to Avionic System's Flight Deck of the Future team for outstanding innovation

Senior Design Project Highest Honors
Awarded for MIT thesis

Designs from Media Lab featured on CNN and multiple TED talks

EDUCATION

Harvard University | Cambridge, MA
B.S. Engineering Sciences ***September 2010 - May 2014***
Track in Biomedical and Mechanical Engineering - GPA: 3.4 / 4.0
Thesis: Augmentation of Muscular Endurance in Lower-Limb Exercises via Passive Elastic Exoskeleton

WORK EXPERIENCE

X, The Moonshot Factory | Mountain View, CA
Wearable Robotics Software Engineer ***Feb 2021 - Present***
Building a robotic exoskeleton to improve quality of life for hundreds of millions of people

Google | Mountain View, CA
Senior Software Engineer, Google Ads ***May 2017 - Feb 2021***
Authored cross-platform Dart RPC library used by 75+ major apps within Alphabet, including Google Play Console, Waymo, and Google Ads
Maintained the open-source Dart protobuf compiler and gRPC libraries
Led cross-team working group to optimize query latency for migration of $100+ billion / year product (Search Ads 360)
Stood up offline pipeline for UI customization to reduce page load latency
Re-tooled entity metadata delivery infrastructure for complex UI scenarios

McMaster-Carr Supply Company | Chicago, IL
Software Engineer, mcmaster.com ***August 2014 - May 2017***
Rewrote the Order History page to reduce median page load latency by 300ms
Authored warehouse automation routines on z/OS mainframe in COBOL
Designed and implemented Virtual Desktop Infrastructure solution to support ~1,000 call center employees

NASA Johnson Space Center | Houston, TX
Avionic Systems Engineering Intern ***May 2013 - August 2013***
Designed visualization system for "Holodeck" telepresence dome
Used CAD and FEA to build and analyze projector support systems
Wrote C++ with OpenGL to create warp matrices for projector image correction

MIT Media Lab Biomechatronics Group | Cambridge, MA
Prosthetics Undergraduate Researcher ***June 2012 - May 2013***
Designed new 3D-printed leg socket and improved Factor of Safety 5x via FEA
Created new socket design method in SolidWorks to speed up design 10x

Thesis ***August 2013 - April 2014***
Designed, built, and tested lightweight human-powered exoskeletons
Used MATLAB CV library to track motion and calculate 2D stiffness of springs
New design reduced metabolic expenditure by ~15% for squat activities