Chris Pillion

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SUMMARY OF QUALIFICATIONS

The following qualifications are by no means exhaustive to my full skill set and are chosen to reflect the strongest skills most relevant to the *Software Developer* position at Five Talent.

Computing Skills:

Languages: Java, C#, C++, Javascript, SQL, HTML/CSS
IDEs: IntelliJ, Qt, XCode, Visual Studio
Platforms: Ubuntu 16.04**,** MacOS Sierra, Windows 10
Tools/Applications/Frameworks: Git, OpenGL, Spring, Hibernate, Ruby on Rails, Phoenix, Matlab/Simulink, OpenCL, Adobe Photoshop
Object Oriented Design Principles: Design Patterns (Strategy, Template, Singleton, Adapter, Façade, Composite, Decorator, Factory, Flyweight, Iterator, Observer, Proxy, Command, Memento, State), MVC, UML, Refactoring, Anti-Patterns, Requirements, Lifecycles

Computer Science/Engineering Concepts:

Critical Thinking, Problem Solving, Root Cause Analysis, Software Engineering, Data Structures, Object Oriented Analysis and Design, Algorithms, Machine Architecture, Engineering Process (6S & Lean), Gantt Charts, Control Theory, Robotics, Computer Graphics, Linear Algebra

Communication Skills:

Experience with agile design methodologies and practices such as Scrum
Strong writing, verbal, social, and interpersonal skills.

EDUCATION

University of Colorado, Boulder, Colorado
Master of Engineering in Computer Science — GPA 4.00

University of Maryland, College Park, Maryland
Bachelor of Science in Aerospace Engineering — GPA 3.53

PROFESSIONAL EXPERIENCE

University of Colorado, Boulder, Colorado — May 2017 - Present
Graduate Teaching Assistant – Computer Science Department

- Directed and assisted graduate and undergraduate students in the development, debugging, and testing of software assignments and projects in Computer Graphics
- Evaluated student performance on technical acceptability of assignment submissions
- Provided feedback and guidance concerning best practices and solid software development
- Responded to student concerns on general and specific issues or topics in Computer Graphics software

United Launch Alliance (ULA), Centennial, Colorado — May 2013-May 2017
Control Dynamics Engineer

- Member of the Vehicle Control Systems IPDT supporting the Vulcan, Atlas V, and Delta IV rocket lines. Responsible for the mission integration, software development, simulation implementation, tool modeling, flight software parameter generation/ verification, and research & development.
- Titles and Individual Responsibilities:
    - **Control Dynamics Analytic Engineer** on Vulcan Rocket Development:
        - Conduct studies and analysis on behalf of Vehicle Control Systems in support of the new Vulcan rocket. These studies include (but are not limited to) extensive simulation modeling, autopilot design, stage separation design, slosh model creation, actuator design and control topology, and rate gyro sensor development.
    - **Software Development Lead** on the following applications:

        - GUAVA: Autopilot simulation and verification tool used to validate integrated test environment implementation of the powered flight autopilot. Essential to Flight Qualification Testing.
        - COMIT: Control Dynamics Mission Parameter Verification tool. Critical tool used to verify flight ready Controls parameters to be loaded into the flight software.
    - **Control Dynamics Mission Engineer** on the following missions:
        - NROL-35 - Atlas V 541 launch for the National Reconnaissance Office
        - AFSPC-4 - Delta IV M+(4,2) launch for the Air Force Space Command
        - Solar Orbiter - Atlas V 411 launch for NASA and ESA
- Sampling of Significant Accomplishments:
    - Showcased exceptional software development skills by solely authoring a unique autopilot simulation and verification tool in support of the Common Avionics Major Development program.
    - Spearheaded the effort to reduce the cost and complexity of the redundant rate gyro avionics architecture, leading to cost savings of up to approximately one million dollars per launch while maintaining a robust control system
    - Reconciled system cost and complexity through exemplary work in the realm of thrust vector control actuators. The analysis and modeling led to hundreds of thousands of dollars in savings and an accelerated avionics development schedule

AWARDS & HONORS

United Launch Alliance

- *STARS Award for Vulcan RRGU R&D Study*
- *STARS Award for GUAVA Software Tool Creation*
- *Special Recognition for Integration Efforts on NROL-35 and AFSPC 4*

Scholarships

- *Sikorski Corporate Partners Scholarship Recipient*
- *Thomas and Christine Li Scholarship Recipient*
- *Navy Pilot BDCP Scholarship Recipient*

Certificates

- *Certificate of Meritorious Service – 400+ Hours Service*
- *Certified Tae Kwon Do Black Belt*

ACTIVITIES & PASSIONS

- Recreation: Hiking, Backpacking, Camping, Climbing, Mountain Biking, Cycling, Skiing, Snowboarding, Baseball, Football, Frisbee, Soccer, Basketball, Softball, Golf
- Game design, development, programming, and testing
- Home improvement projects
- Great beer with greater friends
- Music (piano, guitar, and vocal performance)