Courtney Thurston

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Education

Embry-Riddle University, Daytona Beach, May 2019 2100 SAT, High School Valedictorian (1/925), June 2015
Honors Program, Cum Laude (3.57 CGPA), **B.S. Computer Science & Computational Mathematics** (Physics track)
Mathematics Capstone: "A Novel Machine Learning Regression Approach to Predicting S&P500 Call Prices Using the Black-Scholes Equation" (Thurston, Smith) Computer Science Capstone: "A Novel Binaural Audio Device for Cross-Platform Situational Awareness and Recall" (Silverio & Thurston, DiCroce, Betancourt, Polo)

- Won the 2018 Goldwater Scholarship (211 Scholars/1286 apps.) & the 2018 NCWIT Collegiate Award for Technical Projects
- Wrote and won nearly $50,000 in grants for technology outreach and research; $428,550 in single-college scholarships.
- Student director of the Women's Engineering Institute; Former Teaching Assistant for SE300 Software Engineering Practices.
- Initiated change in career services co-op/internship policy & core computer science/engineering prerequisite sequences.
- Member of Alpha Phi Omega (service); Upsilon Pi Epsilon (computer science); Omicron Delta Kappa (leadership) honor societies.

Professional Experience

Microsoft, Software Engineer I, Fall 2019 - Present | Spark, Azure Synapse Analytics Resource Provisioning

- Drove and created the Spark Release Story from conception through to adoption and integration.
- Took ownership of and managed the health of Spark build and test pipelines, to include a major end-to-end restructuring and refactoring of the primary build/test pipeline. Made unit test runtime ~10x faster.

Microsoft, Software Engineering Intern, Summer 2018 | Azure Stream Analytics

- Designed and worked across the full stack (framework, service, and UI layers) to implement flexible partition paths & increased runtime performance of partitioning on columns for Azure Blob Storage by ~130% through extensive re-design and refactor.

Microsoft, Software Engineering Intern, Summer 2017 | Azure Stream Analytics

- Designed and worked across the full stack to build support for compression algorithms (GZip, Deflate) in streaming inputs.
- Built out framework back-end support to enable streaming job outputs with CSV serialization and without headers.
- Achieved sign-off on six code reviews, deploying both product features to production across all worldwide Azure clusters.

Microsoft, Explorer Intern, Summer 2016 | Cosmos Scope & Azure Stream Analytics

- Developed internal tools for metrics tracking (runtime and reliability) on the big data computing team Cosmos Scope.
- Developed a SQL-like language 'playground' for new Azure Stream Analytics customers to test big data analysis queries.

SpaceX, Propulsion & Vehicle Engineering Intern, Summer 2015

- Designed tooling for flight-critical Falcon 9 landing legs and COPVs and wrote seven Crew Dragon hazard reports for NASA.

Northrop Grumman Corporation, Technical Intern, Spring 2015

- Developed a metrics tracking platform for evaluating program efficacy within HALE unmanned systems including Global Hawk.

Near Earth Autonomy, Carnegie Mellon University, General Robotics Systems Intern, Summer 2014

- Modeled mounting positions for a LiDAR sensor on a light military helicopter using SolidWorks.
- Performed occlusion studies & verification and validation tests; compiled a report for internal research and development.

Technical Skills

C#, .NET, Java, TypeScript, JavaScript, Git, PowerShell, Visual Studio, SQL-like languages, Databases, Azure

Competitions, Hackathons, and Programs

2010-2015 FIRST Robotics
3rd Place Overall; Teamwork and Collaboration Awards; Innovation Award; Research Award
2011-2015 Real World Design Challenge
2nd place in the United States (2x)
Pennsylvania State Champion (4x)
2014 'The Port' Hackathon at CERN
2015 Qualcomm Women's Collegiate Conference + QWCC Hackathon
2016 MangoHacks
2016 MHacks: Refactor
2016 SwampHacks (Best Use of Amazon Web Services, 3rd Place Overall)
2016 Google CodeU Program
Invite-only talent development program for high potential freshman & sophomore candidates. Developed a basic, lightweight search engine (Java, Redis To Go, TF-IDF).
2018 NCWIT National Winner (1/2)

Awards, Honors, and Scholarships

Anita Borg Grace Hopper Celebration Scholarship (3x)
AXA Achievement Community Award Scholarship
Brad Feld & Amy Batchelor Aspirations in Computing Award Scholarship
Burger King WHOPPER Scholarship (3/50k+)
Coca-Cola Scholarship (150/103k+)
EAA Scholarship
Elks Most Valuable Student Competition National Finalist Scholarship
Facebook Grace Hopper Scholarship
FIRST Robotics Scholarship
GE-Reagan Scholarship (20/13k+)
Goldwater Scholarship (211/1286)
Google Grace Hopper Travel Grant
Google Society of Women Engineers National Conference Travel Grant (2x)
IGNITE Research Grant
Jack Kent Cooke Scholarship (44/2.6k+)
Keds Do Something Grant (2x)
Lint Center Richard Eaton Scholarship
Microsoft Grace Hopper Scholarship (2x)
National Space Club Scholarship
NCWIT Aspirations in Computing National High School Award (35/3.5k+)
NCWIT Aspirations in Computing National Collegiate Award (18/144)
Outstanding Service Award
Presidential Scholarship
Presidential Volunteer Service Award
Rising Eagle Award
SanDisk Engineering Scholarship
SASEA Student Employee of the Year
Student Employee of the Year
Taser Intl Grace Hopper Scholarship
VIP Women in Tech Scholarship
Women of Excellence Scholarship