

# Ethan Barnes

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## EDUCATION

### Bachelor of Science in Computer Science

May 2018

New Media Institute Certificate

University of Georgia - Athens, GA

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## TECHNICAL EXPERIENCE

**Platforms/Tools:** Linux/Unix, Windows, MacOS, Android, iOS, Xcode, ROS

**Programming Languages:** C/C++, Java, Python, CUDA, Swift, HTML, CSS, Javascript, Ruby, SQL

**Major Courses:** Software Development, Systems Programming, Theory of Computing, Web Programming, Computer Networks, Probabilistic Robotics, Database Management, and Cyber Security

**Personal Projects:** Low Poly Watchface for Pebble Time, Trend Dungeon, Raspberry Pi Homescreen

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## PROFESSIONAL EXPERIENCE

*Electronics Team Lead*

February 2017-Present

### UGA Small Satellite Research Laboratory

Athens, GA

- Lead a team of 6 software and electrical engineers to perform research and implementations for review by NASA and the Air Force Research Laboratory
- Design and develop satellite software architectures for deployment, scan, data downlink, and data processing
- Design and perform electrical and software system tests on satellite hardware
- Program functions and modes for the Spectral Ocean Color (SPOC) satellite mission for NASA's second iteration of the Undergraduate Student Instrument Project (USIP)
- Perform research in compression and encryption methods for the Multi-view Computational Onboard Imager (MOCI) mission for the Air Force Research Laboratory's ninth iteration of the University Nanosatellite Program (UNP)

*Software Developer*

January 2018-Present

### Computational Drug Discovery Lab

Athens, GA

- Develop edge finding algorithms for prediction of protein binding sites based on complex data sets using CUDA
- Create new computational drug discovery methods and improving existing methodologies
- Build models to simulate biological systems

*Technician*

June 2016-January 2018

### Total Technology Solutions

Athens, GA

- Contract IT work to local medical businesses in the Athens location
- Responsible for various networking and computer help - such as troubleshooting and repairing networks, managing servers, and setting up new workstations for doctors

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## ACTIVITIES

### Center for Undergraduate Research Opportunities (CURO) Assistantship Recipient

- Compression and Encryption Methods for Small Satellite Communication

### Freelance Web Developer

- Oconee County Farmers Market
- Crescent Hill Farms

### University of Georgia Chapter of the Association for Computing Machinery (ACM)

- iOS Development Team
- UGA Hackathon