

# Kevin Dee

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## Education

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### Swarthmore College

GPA: 3.61

Attended 2018-2022, graduated with a B.S. in Engineering and a minor in mathematics

Relevant coursework:

Communications Systems	Electromagnetic Theory	Electronic Circuit Applications
Physical Electronics	Real Analysis I & II	Engineering Design Capstone

## Professional Experience

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### Lockheed Martin - Research Scientist

[Advanced Technology Center \(ATC\)](#)

Working as a research scientist in the ATC's Phenomenology lab group since 2022, I have primarily supported a new exoatmospheric missile interceptor program through early design.

- Scaled optical signature modeling processes to be distributed over a cluster computer, accelerating modeling in support of major design review milestones
- Integrated externally-procured optical signature modeling software into existing simulation input preprocessing applications to enable realistic modeling of emissive and reflective signatures for interceptor targets as they travel through space
- Acted as liaison to internal and external groups, including FFRDC/UARCs, to identify, communicate, and resolve quality issues with interceptor target models
- Refined existings designs and implemented core ballistic propagator algorithms for flight software, applying the Runge-Kutta method and the unscented transform
- Recognized as Aspiring Technical Talent (ATT), leading to mentorship opportunities

## Project Experience

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### Satellite Communications

- Set up a fully-automated [ground station](#) that receives and processes image transmissions from NOAA polar-orbiting weather satellites
- Expanded setup to allow for continuous reception of earth imagery from NOAA geostationary satellites
- Revisited the [geostationary satellite receiver](#) project for an undergraduate course in communications systems to learn more about the modulation scheme and error correction being used by the system

### Linux System Administration

- Installed and maintained Linux on a [home server](#), desktops, and single-board computers
- Currently hosting a media streaming service, home network ad-blocking, an AI-enabled photo catalog site, a reverse proxy, a FTP server, a Samba network share, a git server, and occasionally servers for various online games

### Amateur Rocketry

- Founded school clubs for amateur rocketry in high school and college
- Taught the principles of rocket design and construction to dozens of classmates
- Mentored classmates in receiving level 1 and 2 high-power rocketry certifications

## Skills and Qualifications

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- Clearance level: Top Secret with non-DoD SCI
- Technical skills: Linux systems, Autodesk CAD Suite, electronic test bench equipment
- Coding languages: MATLAB, Simulink, Python, C++, bash
- Modeling Experience: Aerospace target optical signatures (MSLRAD, OSC, SPIRITS), Background optical signatures (SSGM), Cluster computing software (TORQUE/Slurm)