

# David Etler

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## Education

**Jan. 2017** Bachelor of Science in Computer Engineering – New Jersey Institute of Technology  
Albert Dorman Honors College

**May 2015** Associate of Science in Engineering – Ocean County College  
GPA: 3.95/4.0  
Graduated *Summa Cum Laude*; Phi Theta Kappa Member

## Programming Projects

### RSA Encryption Program

- Implemented RSA encryption in Java with a classmate
- Included message encryption, decryption, key-pair generation, message signing, and signature verification
- Built a graphical user interface (GUI) to drive the program

### Image Compression Algorithm

- Designed and implemented an algorithm for image compression in MATLAB in a team setting
- Applied Linear Algebra and the discrete cosine transform to efficiently encode images, similar to JPEG

### Orbital Mechanics Simulator

- Wrote a light-weight C program to numerically solve the N-Body problem
- Used numerical differential equation techniques to simulate the mechanics of orbiting bodies
- Implemented a user interface to render orbiting bodies in 2D with OpenGL

## Employment History

**Oct 2015** – Tutor and Mentor, Newark Kids Code

**Present** New Jersey Institute of Technology, Newark, New Jersey

- Teaching elementary school students from Newark about computer science
- Assisting students in creating games in the Scratch programming language

**Oct 2014** – Peer Tutor, Mathematics Center

**May 2015** Ocean County College, Toms River, New Jersey

- Tutored students in mathematics and physics
- Worked with students one-on-one and in study groups

**June 2014** – Installer

**Sep. 2015** Prestige A/C Installations, Carteret, New Jersey

- Assembled grills and organized products for installation

## Skills and Proficiency

### Programming Languages

*Java, C/C++*

*Python, MATLAB*

*HTML, CSS, JavaScript*

### Software

*Shell Scripting and GNU Core Utilities*

*Git version control system*

*L<sup>A</sup>T<sub>E</sub>X and Beamer*

## Awards and Certifications

**May 2015** *OCSPE Engineering Scholarship* – Ocean County Society of Professional Engineers

**May 2015** *Scholarly Horizons Honors Scholarship* – Ocean County College Foundation Board

**March 2015** *International Tutor Training Program Certification* – College Reading and Learning Association

**Fall 2013** – *President's Honors List* – Ocean County College

**Spring 2015**