# Jeffrey A. Clark

## About

Jeffrey A. Clark (Alex) is the Creator of Python Pillow, President of ACLARK.NET, LLC and President & Executive Director of DC Python.

Alex has a Bachelor of Science in Computer Science from Loyola University in Maryland (formerly Loyola College).

He has worked as a Systems Administrator, Network Engineer, Python Programmer and Technical Team Leader since May 1998.

## Work Experience

### ACLARK.NET, LLC

**President and Co-Founder, Python Programmer, Full Stack Web Developer, Platform Engineer**

May 2004 - present

* GeoDjango and Wagtail CMS development for Zeitbyte LLC's Zeitcaster Events (September 2017 - present)
* Develop and maintain location-based library of events for all ages and interests.
* Project management in GitHub.
* Developer team management.
* Wagtail CMS development for the Community Foundation of Boone County's Connect Boone County website (May 2022 - present).
* Maintain legacy site developed by original vendor.
* Continue deployments to client's AWS account.
* Monthly AWS Elastic Beanstalk platform upgrades.
* Plone CMS and Wagtail CMS development and hosting for the National Forum of ESRD Networks (February 2011 - present).
* Develop, deploy and maintain Wagtail CMS.
* Migrate Plone CMS content to Wagtail CMS.
* Develop, deploy and maintain Plone CMS.
* Deploy to Amazon Web Services via Elastic Beanstalk.
* Django Developer for Two Rock Software (June 2022 - June 2023)
* Drupal developer for National Initiative for Cybersecurity Careers and Studies (September 2019 - February 2020)
* GeoDjango developer for National Geographic's Out of Eden Walk website (July 2015 - October 2016).
* Plone CMS development for the Navy International Programs Office.
* Plone CMS deployments on Windows.
* Plone CMS development for The Nature Conservancy.
* Plone CMS development for Radio Free Asia.
* Migrate Bricolage CMS content to Plone CMS.
* Plone CMS development for SABES, the Massachusetts adult education (AE) professional development (PD) system.
* Plone CMS development for NASA's NASA Science website.

### National Institutes of Health / National Institute of Mental Health / Division of Intramural Research Programs / Neurophysiology Imaging Facility

**Systems Administrator**

March 2013 - October 2023

* Provide research services to NIH research community.
* Manage and maintain computers, software and related items for scientific core facility.
* Manage and maintain NetApp storage system featuring dual FAS-3240 and FAS-2240 controllers, SnapMirror and 200T data across 8 volumes, shared via NFS & CIFS, authenticated and authorized via NIH Windows domain controller.
* Manage and maintain Dell VMWare server with 11 virtual machines, each with 32G RAM & 8G disk, primarily used by researchers to perform data analyses with MATLAB software.
* Install and configure Ubuntu Linux, CentOS Linux, Apple macOS Unix and Microsoft Windows workstations and servers.
* Produce and maintain professional documentation with Sphinx software containing facility usage instructions and systems documentation.
* Research and purchase computers, software and related items through complex government purchasing system.
* Frequently surplus broken or unused computers and other items to effectively manage severe physical space limitations.
* Frequently update property manager with ownership and location status of accountable property for entry in NIMH property database.
* Provide desktop and mission-critical production operations support.

### National Institutes of Health / National Institute of Mental Health / Division of Intramural Research Programs / Scientific and Statistical Computing Core

**Systems Administrator**

May 2002 - October 2005

* Provided research services to NIH research community.
* Managed and maintained computers, software and related items for scientific core facility.
* Installed and configured Debian Linux, Fedora Core Linux, Redhat Linux, Apple OS X Unix and Microsoft Windows workstations and servers.
* Installed, configured and maintained Apache web server, Plone content management system, ProFTPD FTP server, OpenLDAP directory services, CIFS & NFS file sharing services, CVS version control system, and Arkeia tape backups.
* Researched and recommended computers, software and related items for purchase through complex government purchasing system.
* Analyzed network and computer security.
* Analyzed network performance with MRTG software.
* Provided Plone content management system instruction to content editors.
* Provided desktop and mission-critical production operations support.

### Genuity

**Network Engineer**

October 1998 - November 2001

* Developed Perl and Expect software to support remote configuration of over 2,000 Cisco 2511 Access Servers, Equinox Terminal Servers, and Cisco Catalyst 1900/2820 Ethernet Switches.
* Developed Perl CGI software to support remote configuration of access servers with over 4 ingress T1 data lines via SNMP e.g. Cisco 5400, Lucent APX 8000, Nortel CVX 1800.
* Configured over 2,000 Cisco Access Servers, Equinox Terminal Servers and Cisco Catalyst Ethernet Switches.
* Installed and configured Debian Linux, Redhat Linux, Sun Microsystems Solaris Unix and Microsoft Windows workstations and servers.
* Configured Linux kernel modules to support myriad network interface cards.
* Researched and resolved complex network connectivity issues.
* Verified successful negotiation of TCP, PPP and L2TP protocols through dial-up connections between client programs and remote access servers.
* Performed maintenance on AOLnet and BBN Dialinx dial-up networks.
* Provided mission-critical production operations support.

### Charm Net

**Systems Administrator**

January 1998 - August 1998

* Managed and maintained 4 BSDI Unix servers for over 2,000 internet service provider customers.
* Installed, configured and maintained DNS, NFS, Sendmail, Apache, INND and Dump/Restore software.
* Installed and configured computers and software for streaming FM radio to the internet.
* Installed and configured BSDI Unix servers and Microsoft Windows workstations and servers.
* Provided mission-critical production operations support.

### Loyola University Maryland

**Help Desk Technician**

August 1996 - November 1997

* Installed and configured Sun Microsystems Solaris Unix, Slackware Linux, Redhat Linux and Microsoft Windows workstations and servers.
* Performed installation and maintenance of computers and software in labs, offices, and dormitories.
* Provided technical support to students, faculty, and administrators via telephone and on site.

## Skills

### Programming Languages

* C
* Python
* JavaScript

### Web Development

* Django (Django REST framework, Django Allauth, Django Crispy Forms, Django Debug Toolbar, Django ORM)
* React (Jest, Webpack, Babel, ESLint)

### Frontend Technologies

* HTML5, CSS3, JavaScript
* Bootstrap

### Backend Technologies

* RESTful API development with Django REST framework
* Database design and management (PostgreSQL, MySQL)

### Cloud Services

* Amazon Web Services (AWS)
* EC2, S3, Lambda, RDS
* AWS Elastic Beanstalk for deployment
* AWS CloudFormation for infrastructure as code

### Version Control

* Git (GitHub, GitLab, Bitbucket)

### Development Tools

* Docker for containerization
* Webpack for bundling and asset management
* npm and pip for package management

### Testing

* Unit testing and test-driven development (TDD)
* Pytest for Python testing
* Jest for JavaScript testing

### Other Skills

* Continuous Integration and Continuous Deployment (CI/CD) with Jenkins and GitHub Actions
* RESTful API design principles
* Web security best practices
* Responsive and mobile-first web design with Bootstrap

### Soft Skills

* Strong problem-solving and debugging skills
* Effective communication and collaboration in a team environment
* Adaptable and quick learner in a fast-paced development environment

## Education

### Bachelor of Science

**Loyola University Maryland (formerly Loyola College in Maryland)**

* Major in computer science
* Month and year of graduation: January 1999 (participated in the graduation ceremony in May of 1998)

## Additional Work Experience

### Python Pillow

**Fork Author & Project Leader**

July 2010 - Present

* Forked Python Imaging Library to create a frequently-updated and well-maintained alternative to the Python Imaging Library.
* Facilitate growth of core team from single volunteer to many volunteers over many years.
* Oversee development to ensure best possible quality of releases.
* Implement and maintain quarterly release schedule.
* Write and submit grant proposal to fund Python 3 compatible version of Pillow.
* Sent to Python Software Foundation February 28, 2013.
* Passed unanimously on March 4, 2013.
* Facilitate funding of 4-person core team by Tidelift.

### DC Python

**President and Executive Director**

2008 - Present

* Co-founded 501(c)(3) non-profit organization to promote & support Python software in DC.
* Oversee events to ensure best possible quality of service to community.
* Envisioned, co-organized and co-hosted Plone Conference 2008 in DC.
* Largest yearly gathering of Plone developers and community.
* First US/Eastern location since inaugural event in 2003.

### Parkwood Residents Association

**Webmaster & Executive Committee Member**

2014 - 2020

* Maintain website for PRA to serve residents of Parkwood community in Bethesda, MD, USA.

## References

* Available upon request.

## Awards

### PyCon 2012 Startup Row Winner

**Founder of pythonpackages.com**

March 2012

* Exhibit pythonpackages.com on Startup Row at PyCon 2012 in Santa Clara, California.
* Pitch "pythonpackages.com began in October 2011 as a fun way to provide useful information to the Python community. Since then hundreds of folks have visited the site to feature their favorite Python packages, for a total of over 10K packages featured. New features have come regularly, and some new features are waiting in the wings, about to be launched."

## Publications

### Plone 3.3 Site Administration

**PACKT Publishing Limited Author**

July 2010

* Author of practical book on new and emerging technology.