

# 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, Equinix 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, INN 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.