

2024 NCSU Computer Science Graduate Student Orientation

Carlos Benavente – CSC IT Manager

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csc_help@ncsu.edu



CSC IT Team

1. Manager (Carlos Benavente)



2. Enterprise Infrastructure Administrator (Trey Murdoch)



3. Linux Administrator (Tim Andrews)



4. System (Mac & Windows) Administrator (Tyler Puckett)



5. Desktop Support Administrator (Trung Dang)



6. Web Programmer (Vacant)

7. Student Temp Employees

<https://it.csc.ncsu.edu/>

What Do We Support?

- Departmental-owned: Desktops, laptops, server-class equipment, smartphones, tablets, & printers
- OS Support: Linux, Windows, and Mac
- Virtualization & Hosting services on prem (VMWare + Proxmox)
- Computer Teaching Labs Support
- Computer configuration consultation and purchasing
- Network support in CSC Spaces
- Security - provide technical guidance and configuration to protect university data and networks
- Surplus and Hardware Decommissioning
- Management of ALL Departmental Web tools and email lists

Who to Contact for IT Support?



For CSC-specific IT support, contact

csc_help@ncsu.edu

For all other general IT support: contact OIT: help@ncsu.edu
(919) 515-HELP(4357)

Walk-in Centers see: <https://oit.ncsu.edu/help-support/>

csc_help@ncsu.edu --> ServiceNow

- Campus-wide Incident Response/Tracking System
- Use your @ncsu.edu account when submitting help tickets.

New ✓	In Progress ✓	On Hold	Resolved	Closed
<div>Number <input type="text" value="INC4106925"/></div> <div>Caller <input type="text" value="Carlos Benavente"/> <input type="button" value="🔍"/> <input type="button" value="👤"/> <input type="button" value="📄"/></div> <div>User ID <input type="text" value="cabenave"/></div> <div>Employee number <input type="text" value=""/></div> <div>Location <input type="text" value="Engineering Building II (EB2)"/> <input type="button" value="🔍"/> <input type="button" value="📄"/></div> <div>Channel <input type="text" value="Email"/></div> <div>Category <input type="text" value="Inquiry / Help"/></div> <div>Subcategory <input type="text" value="-- None --"/></div> <div>Business service <input type="text" value=""/></div> <div>Configuration Item <input type="text" value=""/></div> <div>Assignment group <input type="text" value="ENGR_CSC"/> <input type="button" value="🔍"/> <input type="button" value="📄"/></div> <div>Assigned to <input type="text" value="Tim Andrews"/> <input type="button" value="🔍"/> <input type="button" value="📄"/></div> <div>Description <input type="text" value=""/></div> <div>4000 characters remaining of 4000 characters</div> <div>* Short description <input type="text" value="deployment of new php 8 and apache services"/> <input type="button" value="🔍"/></div> <div>State <input type="text" value="On Hold"/></div> <div>* On hold reason <input type="text" value="Awaiting Caller"/></div> <div>Opened <input type="text" value="2023-07-18 10:27:38"/></div> <div>Opened by <input type="text" value="Carlos Benavente"/></div> <div>Updated <input type="text" value="2023-08-25 10:07:51"/></div> <div>Updated by <input type="text" value="tandrew"/></div> <div>Impact <input type="text" value="3 - Low"/></div> <div>Urgency <input type="text" value="3 - Low"/></div> <div>Priority <input type="text" value="5 - Planning"/></div>				

Reporting IT Issues

- 1st Search OIT's knowledge Base at https://ncsu.service-now.com/sp?id=kb_home
- When submitting Help tickets:
 - Use your university email account: UnityID@ncsu.edu
 - Specify: Personal or Departmental-owned computer?
 - Physical location
 - Computer Number/TAG
 - What OS?
 - Error Messages
 - Things you have tried



“My Computer Doesn’t Work”, “I need help with my software installation” It is not very helpful

CSC and Other Campus IT Facilities

- **CSC Server Rooms:** for on-prem server equipment
- **TA offices:** equipped with desktop and scanner (check with your advisor)
- **Poster printer:** (EB2 3rd Floor Mailroom) – See admin staff Carol Allen @ EB2 3320. **Options:** Hunt Library and Fitts Wollard Hall
- **Teaching/Computer Labs:** EB2 1221, Lampe Drive 255, 200, 201, Ventures IV
- **CSC Public Desktops:** EB2 1235 (end of hallway): 1 Windows and 1 Linux
- For additional CSC facilities: <https://it.csc.ncsu.edu/infrastructure/>
- College of Engineering Labs (EOS Labs):
<https://it.engr.ncsu.edu/computing-labs/>
- Technology Lending at Hunt Library:
<https://www.lib.ncsu.edu/huntlibrary/technology>
- ITECS Equipment Loan Program:
<https://docs.google.com/forms/d/e/1FAIpQLSdLh3pDRjFWZafabrBCIF47P5xW7RkKv9YrqojBtRTyShAdGg/viewform>

RULES AND POLICIES

Endpoint Protection Standard (EPS)

“University Rule”

- [RUL 08.00.18](#) - Endpoint Protection Standard (EPS) requires users take appropriate security precautions when interacting with university data.
- The EPS applies to ***all devices*** that access university data, regardless of who owns them.
- The standard also specifies that all ***university-owned*** devices be managed by a CMS (Configuration Management System) if one is available for that platform.
- EPS requires “security controls” regardless whether it is a university owned endpoint or not.
- Exception Process exists.

Endpoint Security Controls

- Some Examples of Security Controls:
 - Anti-malware & antivirus software
 - Login Authentication
 - Encrypted Network Communication
 - HD encryption
 - Host-based firewall
 - Least Privilege Access

Endpoint Protection Standard - Security Controls

Mobile device security requirements & recommendations: <https://oit.ncsu.edu/it-security/mobile/requirements-recommendations/>

Data Sensitivity Framework

Data sensitivity levels:

- **Ultra-sensitive** – Purple (Examples: SSNs, PINs, passwords, credit cards, digital signatures, biometric data)
- **Highly sensitive** – Red (Examples: personal information regarding health, financials, identity)
- **Moderately sensitive** – Yellow (Examples: education-related data and any data that would affect university business if disclosed inappropriately - grades, course schedule, student ID)
- **Normal, not sensitive** – Green (Examples: published university web content and any data that would not affect university business if disclosed - preferred email address, grade level - undergrad, grad)
- **Unclassified**– White (Examples: static content published on university web pages)

Endpoints storing sensitive data:

- Accessing and storing **purple university data** is prohibited on non-university-owned endpoints.
- Storing **red university data** is prohibited on non-university-owned endpoints
- See [Storage Locations for University Data](#)

RULES/POLICIES (continuation) - DOs & DONTs

- Consult with CSC IT if you need a new version of compiler or interpreter. Example: Python
- Need to install Docker on a department server or workstation? Contact csc_help@ncsu.edu
- Do not modify server software firewalls
- Do not install: Web/FTP services RA/TA **workstations**. Contact CSC IT for more appropriate environments.
- Do not re-install a departmental-owned computer w/o prior approval from CSC IT
- Do not spam NCSU faculty/staff with unsolicited emails about job employment inquiries.

RULES/POLICIES (continuation)

- Do not transfer computer hardware from one lab to another lab w/o CSC IT approval.
- **Dual Boot**: Not allowed on departmental desktops
- **Clickwrap Agreements**: Do not install software on department equipment that requires you to click “I AGREE” before installing it! Check **clickwrap** approved list 1st at <http://software.ncsu.edu/clickwraps>
- **PHISHING**: Don't feed the PHISH! NCSU will never ask you to provide your password.

All violators will be reported to Dean of Students.

All TAs/RAs will have their Advisors notified.

The DGP is made aware of all infractions

Violations of usage policies will result in appropriate disciplinary action up to dismissal from the program.

The BASICS – Computing Account & File Space/Storage

University Computing Accounts Details

- **Unity Account or Unity ID**
 - UnityID@ncsu.edu
- **What Happens to Unity Acct After Graduation?**
 - Students who graduate with a degree retain access to
 - MyPack portal
 - All other access: AD Wolftech, github.ncsu.edu are disabled soon after graduation (1 month).
- **Access to Google Workspace**
 - Students will retain access to their NC State Google account (@ncsu.edu) for six months after graduation.
 - NCSU offer students the opportunity to retain an affiliation to NC State with an alumni email-only account.
- **Best Practices Before Graduation**
 - Migrate ALL personal files from NCSU data storage to personal storage solution
 - Don't take file ownership away with you:
 - Use GitHub Organizations
 - Use Google Shared Drive

University File System/Storage

- NCSU-Drive: 20GB
 - <https://oit.ncsu.edu/my-it/file-space/ncsu-drive/>
 - SMB, CIFS, NFS v4 connection
- Google Drive: 15GB
- Google Shared Drive: 15GB
- For more info, see: https://ncsu.service-now.com/sp?sys_kb_id=993257318366c2d0a35714326daad38e&id=kb_article_view&sysparm_rank=1&sysparm_tsqueryId=16d5e0a097ec1a98a1e5f0c0f053af41
- OIT Research Storage (for faculty)
 - Individual Research Storage (2TB)
 - Project Shares (2TB)
 - Globus Services to share and transfer data with other Globus participating Higher Ed Institutions.
 - <https://research.oit.ncsu.edu/docs/storage/>
- Campus Storage Finder: <https://storage.oit.ncsu.edu/>

Cloud Services and Software

Cloud Services

- **Web Hosting:** <https://getontheweb.ncsu.edu/>
- **CSC IT offers Virtual Machines** for research and instruction: Faculty/advisor must submit request to csc_help@ncsu.edu
- **github.ncsu.edu** “enterprise” – available to students and faculty
- **VCL: NCSU Virtual Computing Lab**
An On-demand remote access service to reserve a computer with a desired set of applications for yourself.
- **AWS Educate**
<https://aws.amazon.com/education/awseducate/>
- Microsoft Azure Cloud Services
- Google Cloud Platform

Cloud Services (Continued...)

- **On-Campus High Performance Computing (HPC):**
<http://hpc.ncsu.edu>
 - Cluster resources to support research & instruction
 - recommended for long running jobs (e.g 100+ cores for up to 48 hours)
 - Advisor/Faculty creates a project with HPC
 - Advisor/Faculty grants student access
- CSC Professor Frank Mueller ARC Cluster:
<https://arcb.csc.ncsu.edu/~mueller/cluster/arc/>
 - Contact: arcusers@lists.ncsu.edu

Software

- **Google Apps @ NC STATE (cloud)**
- Zoom: <https://ncsu.zoom.us/>
- **Microsoft Azure Dev Tools (formerly DreamSpark – available to students and faculty:**
<https://it.engr.ncsu.edu/help/kb/soc-support-ms-azure/>
 - Download for free: Visual Studio, .NET Framework, Visio, Project, Win OS
- **MS Office 365 – free for students, faculty, & staff:**
<https://oit.ncsu.edu/office-365/>

Software (Cont'd)

- Server class software: MariaDB, Docker Containers, Jenkins,...
- Overleaf: <https://www.overleaf.com/edu/ncsu>
 - Online LateX Editor
- Grammarly Pro – CSC PhD Students.
- For additional software: <http://software.ncsu.edu/>
 - MatLab Student Version,
 - CISCO AnyConnect client for vpn (NCSU)

NETWORKING

Networking

- **Wireless (WiFi 6)**
 - Three main SSIDs
 - Eduroam (secured), NCSU, and NCSU-guest (web only)
- **Eduroam (education roaming)**
 - Free & encrypted wireless service
 - Uses certificate enrollment
 - Certificate will allow you to securely connect on NCSU campus and participating institutions worldwide
 - <http://go.ncsu.edu/eduroam>
- **NCSU SSID** - register your device via nomad.ncsu.edu
- We discourage use of 2.4GHz devices
- If research requires use of 2.4GHz band, use channels 1, 6, and 11.
- Avoid using personal hotspots especially inside lecture rooms. These are known to create WiFi interference
- Campus WiFi Etiquette: <https://wifi.ncsu.edu/etiquette/>
- **Wired** – Available to university-owned devices only.
- **VPN** - vpn.ncsu.edu (requires 2FA)
 - CISCO AnyConnect Client

Networking (continuation)

- **Wired** – Available to university-owned devices only.
 - CSC devices are assigned a static DHCP IP
- Must use VPN to remote into a host on campus if firewall permits it.
- There is a dedicated VLAN for hosts that require legitimate public access such as public-facing Web sites.
- **VPN** - vpn.ncsu.edu (requires 2FA)
 - CISCO AnyConnect Client





PRINTING

Printing

- Department does NOT support **personal**
- For personal or coursework printing use WolfPrint:
<http://oit.ncsu.edu/wolfprint/>
- Printing on CSC printers:
 - Contact your faculty or advisor.

The END

THANKS!

csc_help@ncsu.edu