# Brian Hungerman

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## Experience

**Senior Software Engineer @ APPLIED SCIENCES (MICROSOFT)**  — Jan 2025 – Present
Incubating novel A.I. user experiences with collaboration across W+D, MSR & ID.
- Developing full-stack functional prototypes across web & mobile platforms.

**Software Engineer @ A.I. PLATFORM (MICROSOFT)** — Jan 2020 – Jan 2025
Shipped *Online Endpoints* to 50+ regions for *Azure OpenAI, Copilot, Office* & 3p.
- Scaled cloud infrastructure to serve trillions of inferences/month w/ 6 9's *SLA*.
- Optimized *Network Address Translation* to reduce *COGS* by $10 million/year.
- Completed security, privacy & component governance audits as *Security Champ*.
- Spearheaded livesite process improvements via *TSGs* & *SOPs* as *DRI Champ*.
- Implemented *Envoy Proxy* build pipeline w/ *Bazel* & custom C++ filters, e.g.:
  - *SHA-256 Key-Based Authentication (KBA)* filter w/ *CORS* preflight support.
  - *Azure Active Directory (AAD)* authentication filter w/ *LRU* decision cache.
  - *Global Rate Limiting* filter w/ *Go* microservice to pub/sub to *Redis* cache.
- Set up runners & telemetry pipelines in *Azure Data Explorer, Kusto* & *SQL*.
- Shipped *PowerBI* & *Grafana* dashboards to track platform metrics & logs.

**Software Engineer Intern @ A.I. PLATFORM (MICROSOFT)** — May 2019 – Aug 2019
Designed *Jupyter* notebook *CI* pipeline w/ *Azure DevOps, ML SDK* & *Functions*.

**Software Engineer Intern @ VENTANA (ROCHE)** — May 2018 – Dec 2018
Pushed feature-adds & bug-fixes for *MEAN* stack digital pathology web app.
- Prototyped *OpenSeaDragon*-esque image renderer & annotator in *Pixi.JS*.
- Modernized *Nagios* server monitoring w/ *Icinga, Graphite* & *Grafana*.

**Director @ HACKMERCED IV (MLH)** — May 2018 – May 2019
Hosted non-profit collegiate hackathon for 300 students, fundraising $20,000!

**Web Developer @ CITRIS & BANATAO INSTITUTE (UCM)** — May 2017 – Dec 2018
Developed *GitOps* content management system (*CMS*) via *jQuery* & *CSV* files to replace *Drupal CMS*, hosting via *GitHub Pages*: https://citris.ucmerced.edu.

**Instructor @ SUMMER OF GAME DESIGN (MVHS)** — Jun 2015 – Jul 2016
Co-founded non-profit game programming summer camp, fundraising $25,000!

## Research & Education

**Bachelor of Science @ UNIVERSITY OF CALIFORNIA, MERCED** — Aug 2016 – Dec 2019
Computer Science & Engineering, *magna cum laude* (GPA 3.74)

**Lead Research Assistant @ VICE LAB (UCM)** — Aug 2018 – Dec 2019
Led team to develop heuristic & *ML* scripts in *Google Earth Engine* to model & predict California's agricultural fallowing via Earth observation satellite data.
- Onboarded lab to *GitHub* & wrote open-sourced scripts in *Python, C#* & *R*.
- Refurbished lab's website, hosting via *GitHub Pages*: https://vicelab.net.

**Research Assistant @ ANDES LAB (UCM)** — Jan 2019 – May 2019
Visualized *InfluxDB* data for *HVAC* predictive control system in *Python, Grafana*.

**Research Assistant @ SAIL + MACES (UCM & NASA MUREP)** — Aug 2017 – May 2018
Debugged code to 3D-print *Fermi* surfaces via *Marching cubes* in *Fortran90*.

## Skills

**Languages:** C / C++ / C# (8 yrs); *Python* (6 yrs); JS / TS (4 yrs); *Golang / Rust* (2 yrs); *Java / Kotlin* (2 yrs).

**Frame-works:** *Azure* / .NET (6 yrs); *MEAN / MERN* (2 yrs); *LAMP / Drupal* (2 yrs).

**Programs:** *Unity3D* (8 yrs); *Docker* / K8s (4 yrs); *Android Studio* (2 yrs).

## Projects

**Iterate** — *"Code Mobilized"*
**Bit-Naughts** — *"Code Gamified"*
**ARP** — *"..."*

## Awards

Microsoft Hackathon '20
*HackADuo Finalist*

ValleyHacks '19
*First Place*

SLOHacks '19
*Best Google Cloud*

Mobile App Challenge '18
*$2,000 Finalist Prize*

CitrusHack '18
*Third Place*

SDHacks '18
*Third Place*

SacHacks '18
*Second Place*

HackDavis '18
*Best Environment*

HackFresno '18
*Best Hardware*

Mobile App Challenge '17
*$5,000 Grand Prize*

HackMerced '17
*Best Design*