Florent Gluck

Associate Professor

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EDUCATION

| 1998 – 2000 | UNIVERSITY OF GENEVA | Geneva, Switzerland |

Master of Science in Computer Science with emphasis in Computer Vision. Thesis done in collaboration with CSEM (Swiss Center for Electronics and Microtechnology).

| 1995 – 1998 | UNIVERSITY OF GENEVA | Geneva, Switzerland |

Bachelor of Science in Computer Science.

PROFESSIONAL EXPERIENCE

| 09.2013 – Present | HES-SO HEPIA | Geneva, Switzerland |

Associate Professor

Associate Professor of Computer Science. Area of expertise: systems programming, operating systems, embedded systems, bio-informatics. Teach at every year of the Bachelor curriculum: first year course « Algorithms and Sequential Programming », second year course « Concurrent Programming », and third year courses « Advanced System Programming » and « Embedded Operating Systems ». Teaching and courses quality assessed very positively by students throughout the years. Research activities in fields of expertise as well as in additional computing fields.

| 01.2009 – 08.2013 | UNIVERSITY OF GENEVA | Geneva, Switzerland |

Senior Bioinformatician

Designed and led the development of EasyProt, a multi-user web-based platform for the identification and quantification of proteins by mass spectrometry based on the needs and requirements of both the Swiss Center for Applied Human Toxicology and the department of Human Protein Science at the University of Geneva. Conducted research in designing a novel protein identification engine based on distributed computing to efficiently handle arbitrary large datasets.

| 03.2008 – 12.2008 | UNIVERSITY OF GENEVA | Geneva, Switzerland |

Software Developer – Java

Responsible for the development and deployment of the University's open document archive repository. The implementation used the Fedora-Commons open-source project as the back-end and Vital for its interface. Supported other teams with expertise in programming, development and administration. Contributed to the development of the e-learning open source project Dokeos 2.0.

| 07.2007 – 08.2007 | SHARPE PARTNERS | New York City, USA |

Freelance Consultant – C++

VideoThang was a video editing software developed by a small team in collaboration with Fujifilm. The application was architectured around a C++ core and a Flash user interface. Provided expertise in C++, image processing, profiling and code optimization as well as technical guidance and design advice.

| 07.2005 – 06.2007 | BUSYTONIGHT, LLC | New York City, USA |

Senior Software Engineer – Java

BusyTonight was a small start-up of 5 aiming at building a novel web search engine for events. As of mid 2007, BusyTonight's event listings database was North America's

largest with more than 500k events nationwide. Sole maintainer and principal architect of the crawler and events parsing technologies. Events extraction was purely algorithmic and did not rely on user input or third party listings. Other responsibilities included servlets development, linux administration and hardware maintenance.

04.2001 – 06.2005   ACTIVISION, INC.   Santa Monica, CA, USA
Software Engineer – C/C++
NGL was a cross-platform graphics library (PS2, Xbox, GameCube, PC) used to develop multiple games at Activision. Designed, implemented and supported Xbox and PC versions. Additional responsibility was code profiling and optimization. Credited for the following 6 games: *Ultimate Spiderman, Spiderman 2 the Movie* (sold one million units in its first month), *Call of Duty 2 Big Red One, Minority Report, Kelly Slater Pro Surfer, Spiderman the Movie* (sold over four million units).

05.2000 – 01.2001   CSEM   Neuchâtel, Switzerland
Software Engineer – C
A prototype of a board integrating a low consumption core, a retina, and several specialized processing units was designed at CSEM to explore a new approach to image processing. Implemented and validated an experimental optical character recognition system using the dedicated hardware. Fully designed and implemented the software that ran on the system. Participated in other projects involving computer vision algorithms applied to real world applications (agricultural process, motion detection and surveillance security).

TEACHING EXPERIENCE

Lecturer
- **Advanced Systems Programming** (Fall 2012, Fall 2013, Fall 2014, Fall 2015, Fall 2016), ITI Computer Science Department, HES-SO hepia, Geneva, Switzerland.
  Third year course where students learn how to design and implement, from scratch, a simple operating system for the Intel x86 architecture.

- **Concurrent Programming** (Fall 2013, Fall 2014, Fall 2015, Fall 2016), ITI Computer Science Department, HES-SO hepia, Geneva, Switzerland.
  Second year course where students study concurrent systems, synchronization machanisms, and how to properly develop multi-threaded applications.

- **Embedded Operating Systems** (Spring 2014, Spring 2015, Spring 2016, Spring 2017), ITI Computer Science Department, HES-SO hepia, Geneva, Switzerland.
  Third year course where students study Linux in an embedded context, in particular how to deploy from scratch a full Linux system targeted to embedded devices.

- **Algorithms and Sequential Programming** (Fall 2014, Spring 15, Fall 2015, Spring 2016, Spring 2017), ITI Computer Science Department, HES-SO hepia, Geneva, Switzerland.
  First year course course where students learn data structures, algorithms, ADA programming, and C programming.

Assistant Lecturer
- **Real-time Programming** (Spring 2014, Spring 2015, Spring 2016, Spring 2017), Computer Science Department, Engineering School of Geneva, Switzerland.
  Second year course where students learn about real-time embedded systems, and how to program them efficiently.

Teaching Assistant
- **Algorithms and Data Structures** (Fall 1997, Fall 1998, Fall 1999, Fall 2000), ITI Computer Science Department, HES-SO hepia, Geneva, Switzerland.

- **UNIX and C Programming** (Spring 1997, Spring 1998, Spring 1999, Spring 2000), ITI Computer Science Department, HES-SO hepia, Geneva, Switzerland.

Students' Supervisor
- **Image Processing** (Fall 1998, Fall 1999), Computer Science Department, University of Geneva, Switzerland.
- **Computer and Information Systems Projects** (Spring 1999, Spring 2000), Computer Science Department, University of Geneva, Switzerland.

ADVISING

M.Sc. Adviser of:
- Florian Schmidt, Dissertation Title: *Ellisys Bluetooth Sniffer GRID*, In collaboration with Ellisys SA, HES-SO hepia, Fall 2016.
- Graham Roberts, Dissertation Title: *Extending an MS2 protein identification platform for very large peak list data*, University of Geneva, Spring 2012.

B.Sc. Adviser of:
- Olivier Belli, Dissertation Title: *Stockage distribué à haute disponibilité à l'aide d'un cluster de raspberry PI*, HES-SO hepia, Spring 2014.
- Stéphane Küng, Dissertation Title: *Traitement délocalisé et adaptatifs de flux d'information de capteurs et émetteurs*, In collaboration with the Geneva University Hospitals, HES-SO hepia, Spring 2014.
- Adrien Python, Dissertation Title: *Système de fichiers distribué de taille illimitée avec Dropbox*, HES-SO hepia, Spring 2014.
- Yvann Argentin, Dissertation Title: *Application mobile pour supporter l'activité des infirmières*, In collaboration with the Geneva University Hospitals, HES-SO hepia, Spring 2015.
- David Da Silva, Dissertation Title: *Quantis Ethernet*, In collaboration with IDQuantique SA, HES-SO hepia, Spring 2015.
- Ermal Feka, Dissertation Title: *Application mobile en milieu néonatal*, In collaboration with the Geneva University Hospitals and HEIG-VD, HES-SO hepia, Spring 2016.
- Brian Nydegger, Dissertation Title: *Lecteur vidéo html5 pour la plateforme d'apprentissage hguitare.com*, In collaboration with Hmonster SA, HES-SO hepia, Spring 2016.
- Anthony Ramirez, Dissertation Title: *Mise en place d'un moteur de recherche open source pour la Ville de Genève*, In collaboration with the City of Geneva, HES-SO hepia, Spring 2016.
- David Wittwer, Dissertation Title: *Infrastructure de stockage multi-tiers*, HES-SO hepia, Spring 2017.
- Sébastien Siron, Dissertation Title: *Maximiser la source d'entropie d'un noyau Linux*, In collaboration with IDQuantique SA, HES-SO hepia, Spring 2017.
- Quentin Roulet, Dissertation Title: *Système embarqué de vidéo surveillance*, HES-SO hepia, Spring 2017.

PUBLICATIONS

Papers
- Argentin Y., **Gluck F.**, Lovis C., Ehrler F., *Individual Nomad Clinical Assistant:*

Supporting Nurses at the Point of Care, Studies in Health Technology and Informatics, 2016;225:654-5.

- Finamore F., Priego-Capote F., **Gluck F.**, Zufferey A., Fontana P., Sanchez J.-C., *Impact of high glucose concentration on aspirin-induced acetylation of human serum albumin: An in vitro study,* EuPA Open Proteomics, volume 3, 2014, pp. 100-113.

- Von Tobel JS, Antinori P, Zurich MG, Rosset R, Aschner M, **Gluck F.**, Scherl A, Monnet-Tschudi F., *Repeated exposure to Ochratoxin A generates a neuroinflammatory response, characterized by neurodegenerative M1 microglial phenotype*, NeuroToxicology. 2014 May 2; 44C:61-70.

- Priego-Capote F., Ramírez-Boo M., Finamore F., **Gluck F.**, Sanchez JC., *Quantitative analysis of glycated proteins*, Journal of Proteome Research. 2014 Feb 7;13(2):336-47.

- Pak H., Nikitin F., **Gluck F.**, Lisacek F., Scherl A., Muller M., *Clustering and filtering tandem mass spectra acquired in data-independent mode*, Journal of American Society Mass Spectrometry. 2013 Dec;24(12):1862-71.

- **Gluck F.**, Hoogland C., Antinori P., Robin X, Nikitin F., Zufferey A., Pasquarello C., Fétaud V., Dayon L., Müller M., Lisacek F., Geiser L., Hochstrasser D., Sanchez JC., Scherl A., *EasyProt – an easy-to-use graphical platform for proteomics data analysis*. Journal of Proteomics. 2013 Feb 21;79:146-60.

- Ramírez-Boo M., Priego-Capote F., Hainard A., **Gluck F.**, Burkhard P., Sanchez JC., *Characterization of the glycated human cerebrospinal fluid proteome*. Journal of Proteomics. 2012 Aug 3;75(15):4766-82.

Posters
- **Gluck F.**, Bechevet D., Cavat J., Kunikowski J., Cornut J., Dassati A., Vaussard F., Ruppen X., Pfister R., *BBSensors: a portable and miniaturized wireless vital signs monitoring system for neonatalogy*, Swiss Medtech Day Conference, Bern, Switzerland, 2016.

- **Gluck F.**, Finamore F., Ramirez-Boo M., Priego-Capote F., Hochstrasser D., Scherl A., Sanchez JC., *An Automated and User-friendly Bioinformatics Workflow for the Characterization of Glycated Proteins*, American Society for Mass Spectrometry Conference, Vancouver, British Columbia, Canada, 2012.

- **Gluck F.**, Finamore F., Ramirez-Boo M., Priego-Capote F., Hochstrasser D., Scherl A., Sanchez JC., *A Graphical Bioinformatics Workflow for the Characterization of Glycated Proteins*, From Genome to Proteome: Open Innovations Conference, Siena, Italy, 2012.

- Finamore F., Priego-Capote F., Ramírez-Boo M. **Gluck F.**, Zufferey A., Fontana P., Sanchez JC., *Glycation Isotopic Labelling with ^{13}C-reducing Sugars for Quantitative Analysis of Glycated Proteins*, From Genome to Proteome: Open Innovations Conference, Siena, Italy, 2012.

- **Gluck F.**, Hoogland C., Antinori P., Pasquarello C., Nikitin F., Müller M., Lisacek F., Hochstrasser D., Scherl A., Geiser L., *Easyprot - a platform for MS1/MS2 data processing, protein identification, quantification and unexpected posttranslational modification characterization*, American Society for Mass Spectrometry Conference, Denver, Colorado, USA, 2011.

- **Gluck F.**, Antinori P., Hoogland C., Pasquarello C., Nikitin F., Müller M., Lisacek F., Hochstrasser D., Geiser L., Scherl A., *Easyprot - a platform for MS1/MS2 protein identification and label-free quantification*, The Human Proteome Organization (HUPO) Conference, Geneva, Switzerland, 2011.

- **Gluck F**., Antinori P., Pasquarello C., Scherl A., Hochstrasser D., Geiser L., *An easy-to-use pipeline for the search and identification of unexpected post-translational modifications on proteins from MS/MS data*, American Society for Mass Spectrometry Conference, Salt Lake City, Utah, USA, 2010.

- Roberts G., Scherl A., Sanchez JC., **Gluck F**., *Extending an MS2 protein identification platform for very large peak list data*, Swiss Proteomics Society PhD Students' Symposium, Biozentrum, Basel, Switzerland, 2010.

Presentations & Talks

- *BBSensors: un système portable, sans fils et miniaturisé pour le monitoring de signaux vitaux en milieu néonatal*, Salon International EPHJ-EPMT-SMT, Journée des Microtechniques Médicales, Geneva, Switzerland, 2016.

- *Proteomics: dry-lab*, Swiss Centre for Applied Human Toxicology Science Advisory Board, Basel, Switzerland, 2010.

PROFESSIONAL ACTIVITIES

2012   SWISS PROTEOMICS SOCIETY   Basel, Switzerland

Member of the organizing commitee and co-charmain for the conference « Swiss Proteomics Society PhD Symposium 2012 » organized in collaboration with the Swiss Universities and the industry.

AWARDS

2001   ARDITI FOUNDATION   Geneva, Switzerland

Winner of the Arditi Award in the Computer Science category for a Masters thesis entitled, *HiMac – Une Nouvelle Architecture pour l'OCR*. Award amount - 5000 CHF.

LANGUAGES

- Native French
- Fluent English
- Basic German